

PART IV.—MISCELLANEOUS.

MEDICAL.

REPORT OF THE PRINCIPAL CIVIL MEDICAL OFFICER AND INSPECTOR-GENERAL OF HOSPITALS FOR 1901.

I HAVE the honour to submit for the information of Government the Administration Report of the Medical Department for the year 1901, with the usual statistical tables.

I.—POPULATION: BIRTH- AND DEATH-RATES.

The estimated population of the Island on December 31, 1901, was 3,619,165; 134,252 births were registered and 98,813 deaths. The birth-rate was 37·3 against 38·5, and the death-rate 27·5 against 28·6 per mille in the previous year, calculated on the estimated population in the middle of the year.

II.—PUBLIC HEALTH.

The public health of the inhabitants of the Island has been good. There has been an absence of those widespread severe outbreaks of malarial fever which characterized the previous year, but cases of smallpox have been numerous, with a few outbreaks of cholera. The sanitary conditions throughout all the towns and villages of the Island are always being improved.

Malarial Fever.—In the Western Province the most sickly and malarious district was that of Negombo (no less than 30,919 cases having been treated during the year), a good part of which is low-lying and swampy, and cases always occur there after the burst of the south-west monsoon.

In the North-Western and Sabaragamuwa Provinces malarial disease was the cause of the largest number of admissions, 67,265 cases being treated during the year.

In the Eastern Province malarial fever existed, and was at its height during April–May.

In the Southern Province this disease existed in the outlying districts to some extent, but the general character of the fever was milder than in the previous year.

It was noticed that in the Northern Province this disease was present in a mild form, and was most prevalent in the first quarter of the year, and was slightly in excess of the previous year.

In the Province of Uva the disease was not prevalent.

In the Central and North-Central Provinces malaria, although present after the monsoon rains, did not assume an epidemic character anywhere, and those cases which occurred readily yielded to treatment.

In my report for last year I pointed out the connection shown between the outbreaks of malarial fever and the monsoon rains, and this year the same circumstance was again noticed.

The most common type of malarial fever in this Island is the tropical (summer-autumn), and is found extensively among both Europeans and natives. No hæmoglobinuric or black water fever up to the present has been seen here, except in passengers from Africa, and though children suffer as severely as adults, yet Kala Azar has never been reported.

Prevention.—During the past year much has been done in endeavouring to find out the best means for the prevention of malarial fever applicable here. The methods which have been under consideration are the following:—

- (1) Quinine treatment.
- (2) Prevention of mosquito bites.
- (3) Prevention of the formation of stagnant pools of water.
- (4) Destruction of the anopheles.

(1) *Quinine Treatment.*—Compulsory quinine administration is of course quite impossible, but much has been done by providing quinine in all the small dispensaries and stations and by giving quinine to the local post offices, at which it can be purchased, so that it is possible for the poorest persons to obtain without any difficulty plenty of quinine, if they so desire.

(2) *Prevention of Mosquito Bites.*—Mosquito curtains are to be found in most districts among the better classes, but unfortunately so little care is applied to their use that they are often practically valueless.

(3) *Prevention of the Formation of Stagnant Pools of Water.*—All hollows containing stagnant water should be filled up, and where this is not possible some aperture of escape for the water should be made in order to convert the otherwise stagnant into running water, in which the anopheles will not develop.

(4) *Destruction of the Anopheles.*—Inquiries have been made into the Culicidæ of the Island during the past year by Dr. Chalmers, F.R.C.S., and the anopheles have been found by him in the following districts:—Colombo, Kurunegala, Polgahawela, Matale, Maduella, Dambulla, Madatugama, Kekirawa, Anuradhapura, Habarana, Mihintale, Kallokunkam, Mankulam, Sarakoli, Jaffna, Mullaitivu, Trincomalee, Rambukkana, Puttalam, Ballala, and Wariyapola Districts.

He made a journey through the northern part of the Island in order to study the distribution of the presence or absence of the anopheles in the malarial regions thereof.

The time of the year was September in the dry season before the burst of the north-east monsoon, so that there were comparatively few mosquitoes about, which fact renders the points to be mentioned below the more striking.

He first stopped for one night at Peradeniya, and there Mr. Green informed him that he had found the anopheles in nearly every month of the year.

At Matale he found the larvæ and the adults, but north of Matale he entered what appears to be almost an anopheles region; from Dambulla to Jaffna everywhere he found the anopheles larvæ. As he was travelling rapidly it was not possible often to catch the adults, but he reared the mosquito in every place from the larvæ.

He next proceeded to Mullaitivu, and had hardly been there half an hour before he had caught between thirty to sixty adult anopholes.

In Trincomalee the anopheles had previously been reported, and he confirms this observation.

In Rambukkana also they were found in plenty.

Larvæ.

Habitats.—In the above-mentioned places the larvæ live principally in pools, the margins of which have attached masses of green matter, or on which masses of green algæ, plants, &c., float. But larvæ have also been found in clear pools where there were no fish.

The larvæ are found in brackish water, in fresh water, in slowly-moving and in stagnant water. In pools which abound with fish they have only been found if there is sufficient green material to protect them from the fish. They have not been found in pools, pokunas, kulams, which lacked this green vegetation but which abounded with fish.

They are readily found in the small pools which form around wells, and in drains which sloped upwards instead of downwards and which contained pools of water.

The larvæ have not been found in the water of deep wells, although *Culex* larvæ have been found there. They have been found in the pools of water of paddy fields.

They are often difficult to discern because of their protective colouring, *e.g.*, in a pool in white sand they are white, in a pool in the black earth they are black, in a pool with green colouring matter they are green.

From the above it is concluded that they can live in any pool in which there is sufficient food and sufficient protection against such enemies as small fish, tadpoles, and small crustacea, and that they are so widely distributed in Ceylon that their destruction is impossible.

The Adults.—His observations on the habitats of adults are that during the daytime they can be found—

(a) *In Houses*:—Anywhere protected from light, *e.g.*, under clothes, in dark corners, under beds, behind furniture, &c.

(b) *In the Exterior*:—In dark places under trees.

It appears that they hatch in the early evening, and that during their nuptial flight they are attracted to the houses by light. In the houses they suck the blood at any time when they have the chance and then hide in dark corners or dark rooms during the brighter part of the day, or in dark places in the exterior. They appear to lay their eggs in some water close at hand to any house or grove which they inhabit. They do not appear to fly very high, the greater number being found below 12 feet.

From the above it is concluded that dark places in the daytime and the night are the most favourable places and times for being bitten. That protection must be specially applied to lower parts of rooms, &c.

The following extract from an officer of the Surveyor-General's Department is inserted as an example of the good result of Dr. Manson's writings:—

I had read Dr. Patrick Manson's Lecture, "Mosquitoes and Malaria," in the proceedings of the Royal Colonial Institute, and determined to give it a practical test, so last year, when on the topographical survey of the Wellawaya and Kataragam korales in the low-country of Uva, I took every precaution against being bitten by mosquitoes.

I always used a mosquito net on my bed, and turned in early or sat up under a little bell tent made of mosquito netting when they were troublesome. Of course I took occasional small doses of quinine as a preventive. These were the only precautions, and I had not a single attack of fever, though in previous years fever was contracted as a matter of course. I had seven surveyors and about ninety-four coolies in my party, and I learn that there was not one who had not had fever that season.

The sickness among the surveyors amounted to 113 days, or an average of 17 days each in the eight months' field season, while 1,210 were recorded against the coolies, or 21 days per gang of twelve per month, but of 94 who began only 36 stuck to their work throughout the season. As far as I can learn there was only one death (malaria and pneumonia), but many were sent back to their villages quite incapacitated.

Cholera.—During the year under review cholera occurred in the Western, Northern, North-Western, and Uva Provinces. Nine cases, with 8 deaths, occurred in the Western Province. Of these, 8 cases—all fatal—occurred at the Ragama Cooly Dépôt. The greatest number of cases was reported from the Northern Province, where 95 cases occurred, with 60 deaths; the Province of Uva comes next, with 46 cases and 27 deaths. Four outbreaks of cholera occurred during the year at Ragama Cooly Dépôt.

The subjoined table shows the Provinces in which outbreaks occurred, the number of cases attacked, the number of those who died, with their nationality :—

Province.			Nationality.											
			Sinhalese.		Moors.		Tamils.		Malays.		Immigrants.		Others.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Western	...	...	2	1	—	—	1	1	—	—	6	6	—	—
Central	...	...	—	—	—	—	—	—	—	—	—	—	—	—
Northern	...	...	—	—	—	—	95	60	—	—	—	—	—	—
Southern	...	...	—	—	—	—	—	—	—	—	—	—	—	—
Eastern	...	...	—	—	—	—	—	—	—	—	—	—	—	—
North-Western	...	...	—	—	—	—	—	—	—	—	2	2	—	—
North-Central	...	...	—	—	—	—	—	—	—	—	—	—	—	—
Uva	...	...	26	15	20	12	—	—	—	—	—	—	—	—
Sabaragamuwa	...	...	—	—	—	—	—	—	—	—	—	—	—	—
Total			28	16	20	12	96	61	—	—	8	8	—	—

Smallpox.—This disease is not endemic in this Island ; the outbreaks of smallpox can always be traced to imported cases in the first instance. During the year under review several cases occurred in the Western, Central, Northern, Southern, North-Western, Sabaragamuwa, and Uva Provinces ; there were 390 cases with 75 deaths, distributed as follows :—

		Cases.	Deaths.			Cases.	Deaths.
Western Province	...	311	59	North-Central Province	...	—	—
Central Province	...	25	4	Province of Uva	...	10	2
Northern Province	...	13	2	Province of Sabaragamuwa	...	9	4
Southern Province	...	8	2				
Eastern Province	...	—	—	Total	...	390	75
North-Western Province	...	14	2				

Western Province.—This disease prevailed in Colombo throughout the year ; two cases were remaining at the end of the year 1900 at the Infectious Diseases Hospital, Kanatta, and 202 cases were admitted during 1901, making a total of 204 admissions, with 35 deaths. Six of these cases were from on board ship.

The prolonged outbreak in Colombo resulted in infecting six villages in the Panadure District, two in the Kalutara District, and four in the Colombo District.

Central Province.—There were 25 cases reported, with 4 deaths, from this Province. There were 13 cases of smallpox, with 2 deaths, reported from the Northern Province ; 8 cases, with 2 deaths, from the Southern Province ; 10 cases, with 2 deaths, from the Province of Uva ; and 14 cases, with 2 deaths, from the North-Western Province ; in the Province of Sabaragamuwa there were 9 cases reported with 4 deaths. The North-Central and the Eastern Provinces were free from smallpox during the year.

Chickenpox.—There were 1,762 cases of this mild infectious disease reported from various parts of the Island, distributed as follows :—

		Cases.	Deaths.			Cases.	Deaths.
Western Province	...	419	1	North-Central Province	...	1	—
Central Province	...	741	1	Province of Uva	...	123	2
Northern Province	...	8	—	Province of Sabaragamuwa	...	234	—
Southern Province	...	214	2				
Eastern Province	...	1	—	Total	...	1,762	6
North-Western Province	...	21	—				

Most of these cases were treated in their own homes, but in towns where an infectious diseases hospital exists many of the cases were moved there.

Measles.—This disease did not assume any alarming proportions in any of the towns or villages.

Dysentery.—This disease was fairly equally distributed throughout the Island. In the Western, North-Western, and Sabaragamuwa Provinces it was most prevalent. In the Northern Province the numbers attacked were slightly in excess of the previous year. In the Eastern Province the prevalence was not marked, but it was present throughout the year. In the Province of Uva the cases were comparatively few. In the Central and North-Central Provinces it prevailed, but never in an epidemic form.

The total number of cases treated in all hospitals was 4,177, with 1,543 deaths. The largest number treated in any one institution was at the General Hospital, Colombo, where 677 cases were admitted, of whom 101 died.

Enteric Fever.—The number of cases treated in the various hospitals throughout the Island was 292, with 74 deaths. The General Hospital, Colombo, admitted 198 cases, of whom 48 died. Some improvement has been made in the number of cases notified. This remark applies especially to Colombo, owing to the attention of the public having been drawn to the law by advertisement in the *Gazette* and local Press ; still I have no doubt very many cases occurred of the existence of which the authorities had no knowledge.

Causation of Enteric Fever.—While in most cases enteric fever is caused by polluted water, as for example in Colombo, yet there is little or no doubt, though the experimental proof is wanting, that it also spreads by other means, such as the common fly, dust, &c.

Leprosy.—The total number of cases reported during the year 1901 was 590, against 635 cases in the previous year, being a decrease of 45 cases.

Return of Lepers treated as Outdoor Patients in the Hospitals and Dispensaries during the Years 1900 and 1901.

	1900.	1901.		1900.	1901.
Western Province ...	53	48	North-Central Province ...	2	—
Central Province ...	27	6	Province of Uva ...	13	7
Northern Province ...	11	6	Province of Sabaragamuwa ...	28	10
Southern Province ...	26	19			
North-Western Province ...	7	2	Total ...	210	135
Eastern Province ...	43	37			

428 cases were treated in the Leper Asylum, Hendala, and 27 in the Kalmunai hospital. The Superintendent of the Leper Asylum thinks there is a progressive increase, and gives the following table of distribution :—

	New Cases.		New Cases.
Western Province ...	51	Eastern Province ...	1
Central Province ...	6	Southern India ...	9
Southern Province ...	12		
Northern Province ...	1	Total ...	80

The Western Province shows the largest number of cases, but this may be due to the convenience of the Asylum for the residents. Colombo comes first with 19 new cases, and it will be noticed that 9 cases were directly imported from India. It might be advisable to prevent lepers from landing on our shores, but legislation would have to make this course practicable.

Since the beginning of the year 1902 the Leper Ordinance has come into operation, and in my report for 1902 much useful information as to the actual number of lepers in the Island will be available. Drs. Van Houten and Koster, Prisoners of War of the Dutch Ambulance, have been working at the Bacteriology and clinical history of this disease during the past year.

Anchylostomiasis.—This disease is constantly being introduced from India by Malabar coolies, and is spread broadcast owing to the careless habits of the cooly, who pollutes the soil and water with his excreta. This disease is on the increase. There were 1,691 admissions in all hospitals, with 326 deaths. The largest number were treated in the Colombo Hospital, viz., 699 admissions, with 86 deaths. The largest number of cases occur in the planting districts. The danger of the disease exists in the profound anæmia, which so lowers the vitality that the victim is carried off by practically any intercurrent complaint.

I am inclined to regard a part at least of the increase in the reported cases of anchylostomiasis to the fact that the disease is recognized now, while only a few years ago it would probably have been regarded as anæmia, consequent on malarial fever.

Parangi.—From the hospital returns it would appear that the number of admissions for this disease has steadily increased during the last five years, but not in proportion to the increase of the population, so that the number affected in ratio to the inhabitants is becoming less every year; as food becomes more easily obtainable with the extension of irrigation, and as sanitary methods become more generally known, this disease will show a marked decrease. The death-rate is remarkably small: out of 3,117 admissions for this disease during the year there were only 12 deaths.

I attach herewith a return of the principal diseases for the last five years for purposes of comparison :—

Comparative Statement of Principal Diseases for the last Five Years.

	Cases.	Deaths.		Cases.	Deaths.
<i>Cholera.</i>			<i>Enteric Fever.</i>		
1897 ...	216	124	1897 ...	148	42
1898 ...	533	320	1898 ...	161	52
1899 ...	Nil	Nil	1899 ...	170	61
1900 ...	814	456	1900 ...	224	77
1901 ...	152	97	1901 ...	292	74
<i>Smallpox.</i>			<i>Leprosy.</i>		
1897 ...	35	3	1897 ...	435	34
1898 ...	14	3	1898 ...	528	51
1899 ...	334	56	1899 ...	506	53
1900 ...	252	42	1900 ...	635	43
1901 ...	390	75	1901 ...	518	56
<i>Chickenpox.</i>			<i>Anchylostomiasis.</i>		
1897 ...	508	—	1897 ...	1,276	274
1898 ...	84	—	1898 ...	1,201	212
1899 ...	1,211	1	1899 ...	1,255	234
1900 ...	935	—	1900 ...	1,336	273
1901 ...	1,762	6	1901 ...	1,691	326
<i>Measles.</i>			<i>Parangi.</i>		
1897 ...	132	2	1897 ...	3,195	18
1898 ...	45	1	1898 ...	3,267	14
1899 ...	29	1	1899 ...	3,080	10
1900 ...	23	—	1900 ...	3,646	9
1901 ...	44	—	1901 ...	3,117	12
<i>Dysentery.</i>			<i>Malarial Fever.</i>		
1897 ...	2,267	721	1897 ...	6,428	453
1898 ...	2,774	1,034	1898 ...	6,097	299
1899 ...	2,639	930	1899 ...	8,305	697
1900 ...	3,204	934	1900 ...	6,226	147
1901 ...	4,177	1,543	1901 ...	5,665	89

Chart I.
Total Diseases in the West
1901

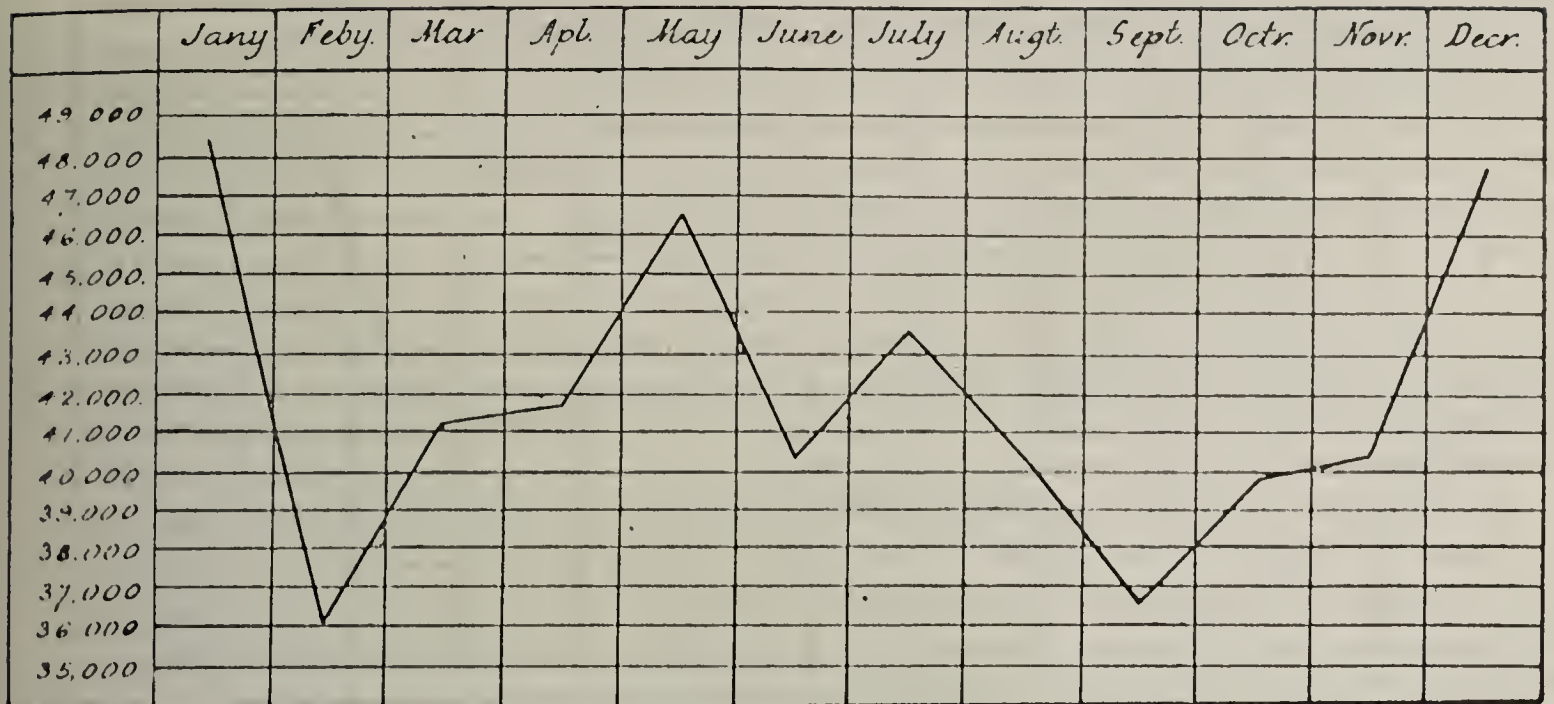


Chart II.
Malaria in the West
1901.

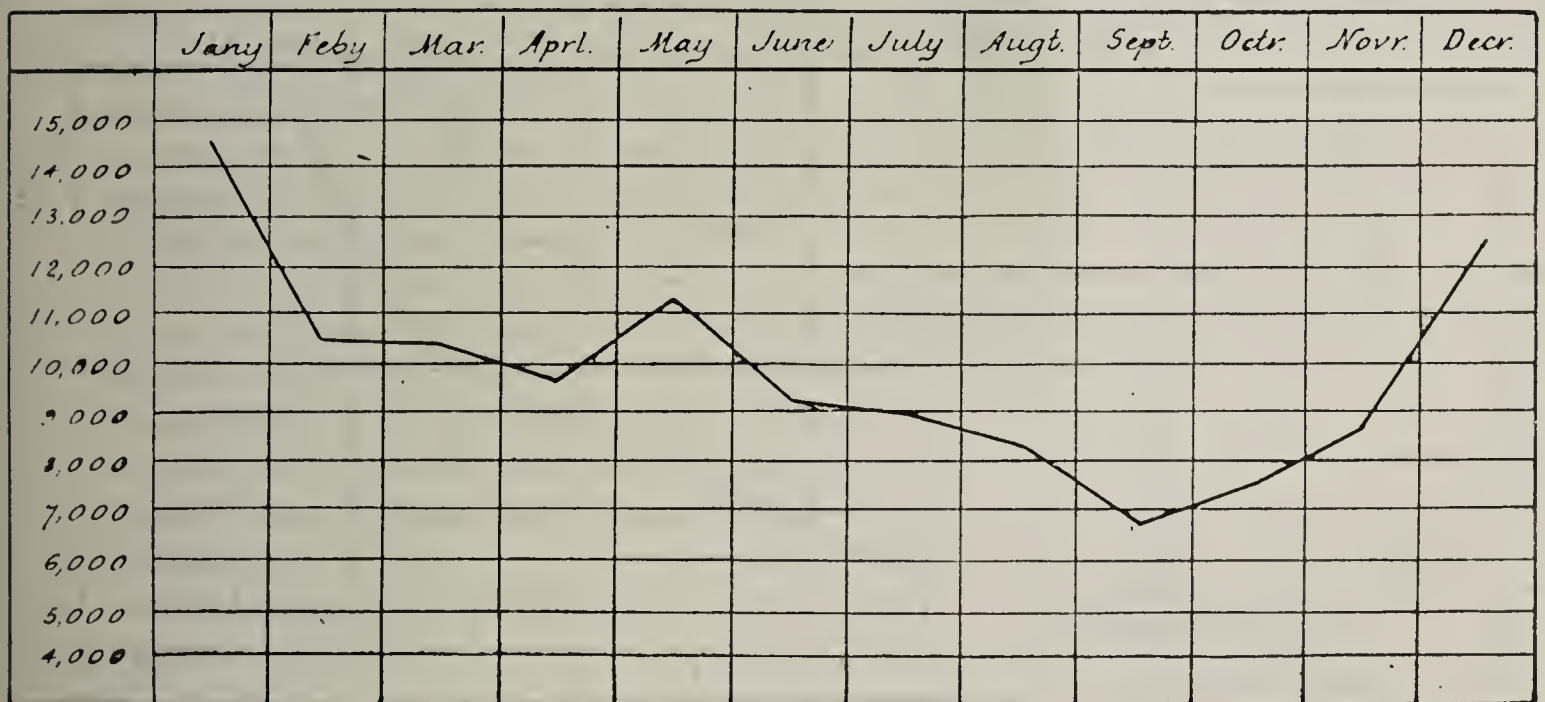
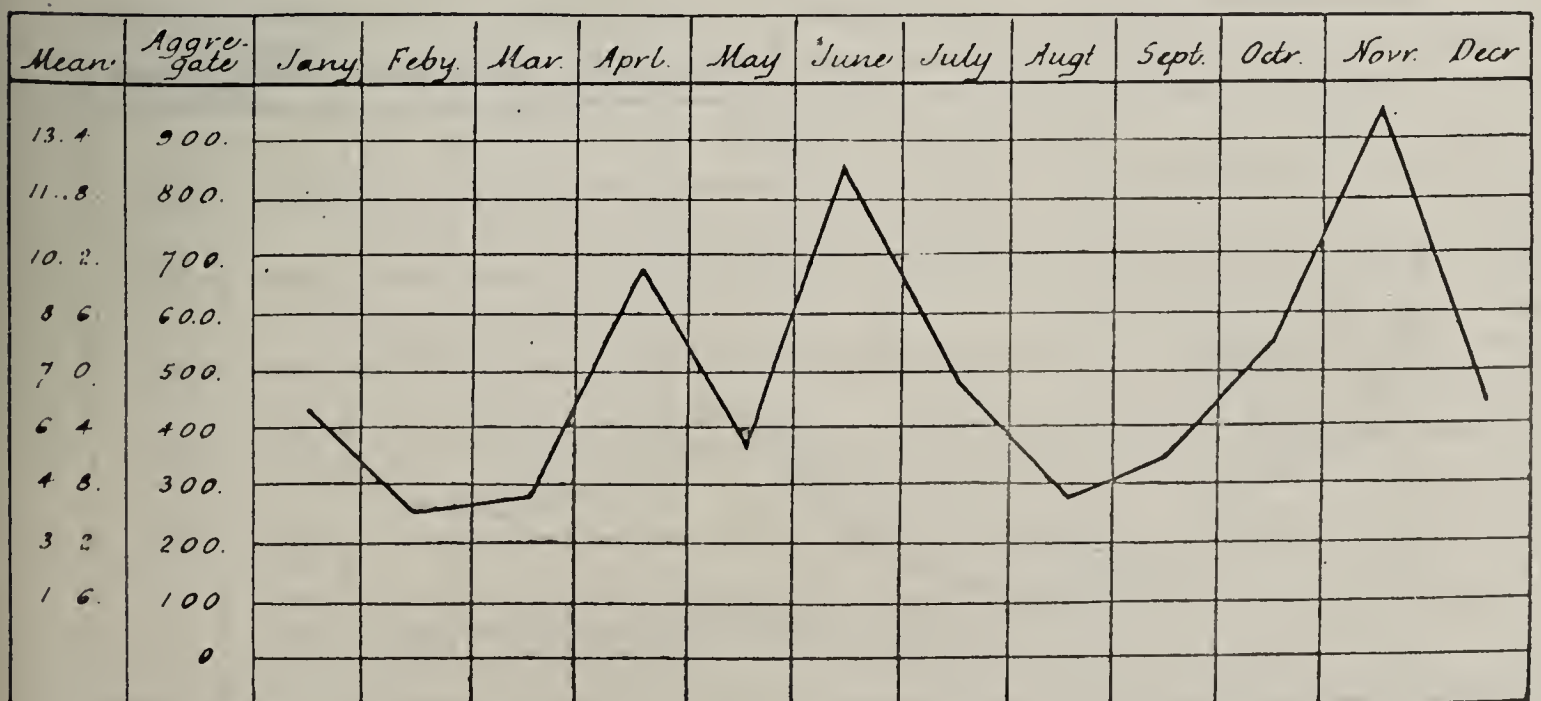
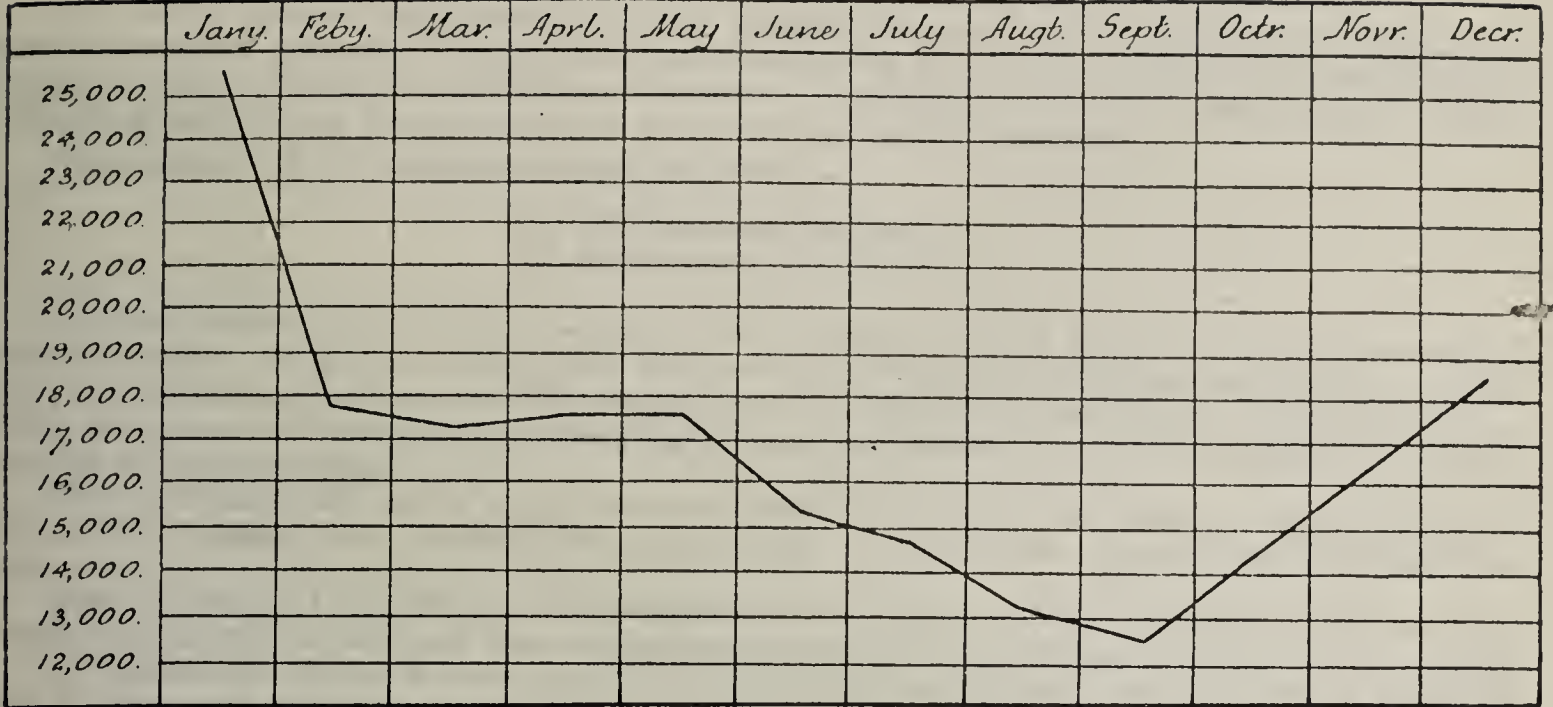


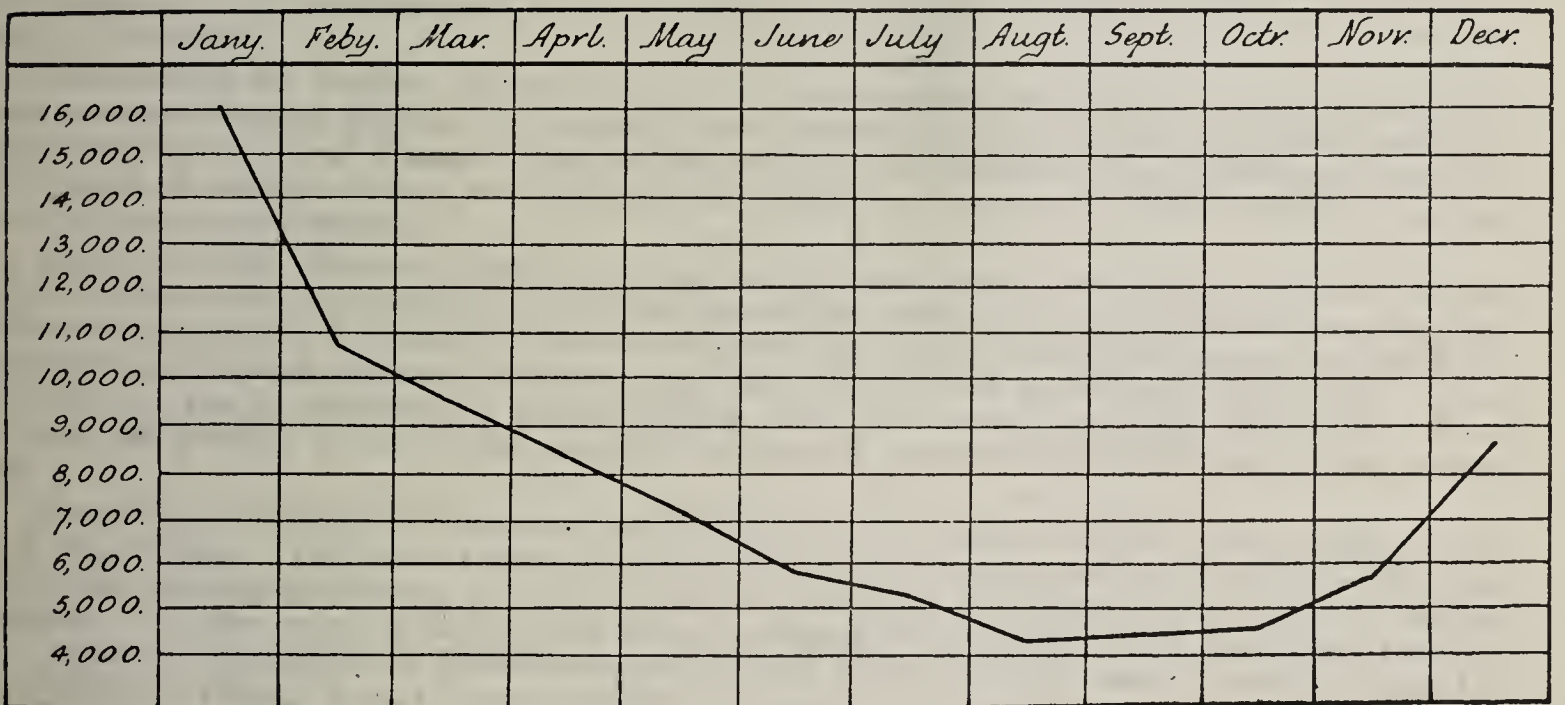
Chart III.
Total Rainfall in the West
1901.



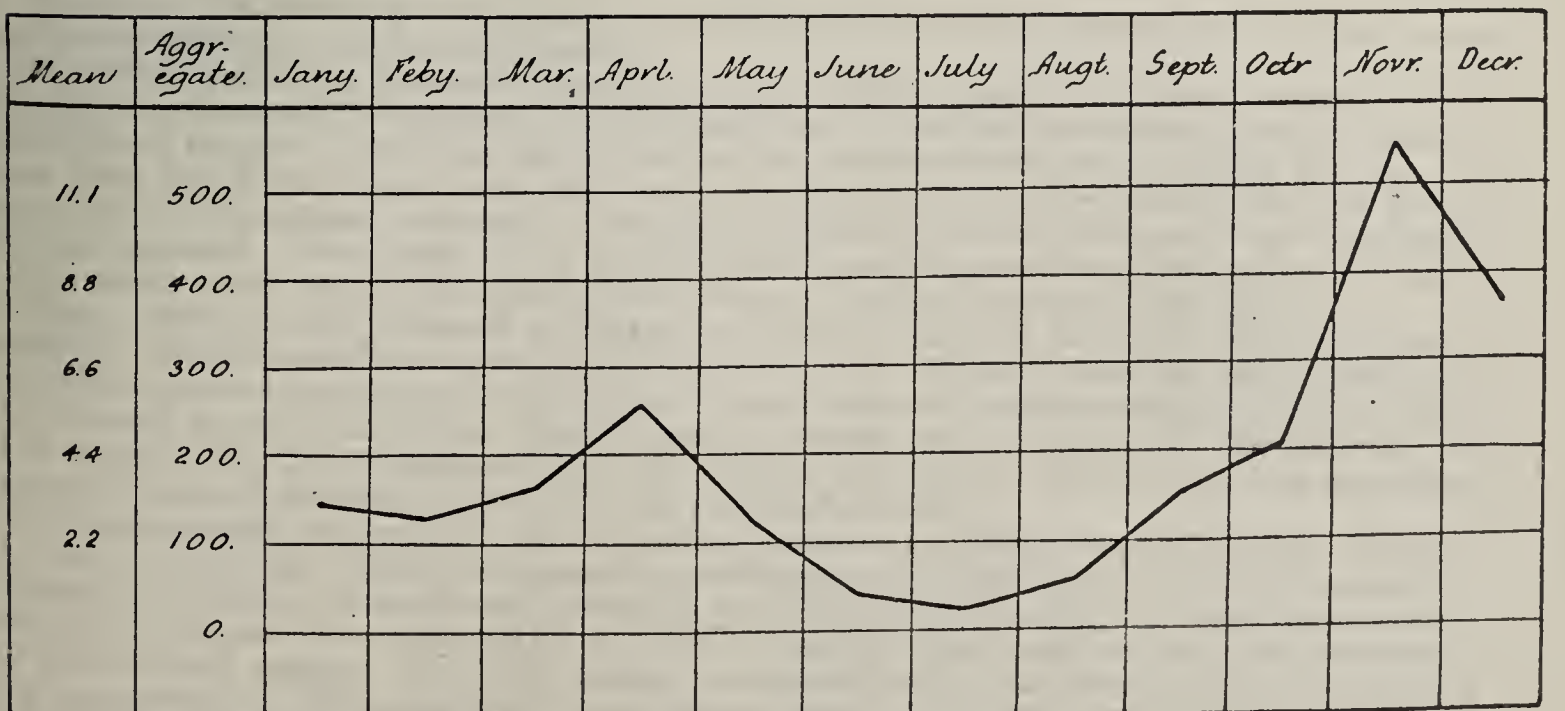
1901.



1901.



1901.



METEOROLOGICAL CONDITIONS AND THEIR RELATIONSHIP TO MALARIA.

For the purposes of this report it has been thought advisable to roughly divide the Island into eastern and western portions. The eastern portion contains the districts affected by the north-east monsoon and the western by the south-west monsoon. The figures show the total number of cases of diseases of malaria and the total amount of rainfall in the two districts.

The subject will be considered under two heads—

- (a) The malaria of the west.
- (b) The malaria of the east.

(a) *The Malaria of the West.*—Chart I. shows the curve of total disease in the western portion of Ceylon. It is to be noticed that this curve has its maximum height in January, and that there is a rapid fall to a minimum in February, a rise to a secondary maximum in May, and a fall to a second minimum in September, and then the gradual rise begins, which culminates in the January maximum of the next year.

Chart II. shows the curve of the cases of malarial fever in the west: its maximum is in January, with a slight rise in May, and a minimum in September, whence the maximum rise begins.

Chart III. shows the total rainfall from the various stations in the west from which malarial returns are obtained. It has been thought better to show it in the aggregate as well as in the mean.

In January the curve is low, reaching a minimum in February, and then rising in April, falling in May, and rising to a secondary maximum in June, falling to a secondary minimum in August, rising to a maximum in November, and declining in December.

(b) *The Malaria of the East.*—Chart IV. shows the curve of the total number of cases of disease very high in January, and falling rapidly in February, and then more slowly to a minimum in September, and then gradually rising.

Chart V. shows the curve of malaria in the east very high in January, falling to a minimum in August and September, and then rising.

Chart VI. shows the curve of the total rainfall in the east, very low in January, rising to a small height in April, declining to a minimum in July, and rising to a maximum in November, and falling in December.

Remarks on the Western Curves.—It will at once be seen that there is a general similarity among the three western curves. The rainfall curve reaches its highest point two months before the highest point of the total disease. The highest point of total disease closely compares with the highest point of malarial disease, each having a maximum in January, a secondary maximum in May, and a minimum in September.

Remarks on the Malarial Curve.—On comparing the malarial curve with the curve of rainfall it will be noticed that the rainfall begins to rise in August, reaches its maximum in November, and declines in December and January, while the malarial curve and that of total disease begins to rise from September through October, November, and December to reach a maximum in January. There is a secondary rise in the western curves in May after the rainfall in April, while the rain of June does not produce a rise in the malarial curve, and hence only a slight rise in total diseases curve.

Remarks on the Eastern Curves.—The similarity of the eastern curves is more marked than that of the western. The main feature of the curves is the loop formation running in the total diseases from January to January of the next year as the highest point, and the lowest point being in September, or in the cases of the rainfall from November to November, with the lowest point in July. Again the rainfall curve precedes the rise of total disease and the rise of malaria. Again the malarial curve is similar to that of total disease, and indeed is its main factor.

GENERAL SANITARY CONDITION OF THE COLONY AND OF THE CHIEF TOWNS.

The general sanitary condition of the Island remains in much the same condition as last year. The same methods of disposal of dust and faecal matter exist, and, though by no means satisfactory, are still far from bad when compared with other tropical countries. The water supply is often very good, and steps are being taken every year to remedy defects.

Colombo.—The town is growing rapidly, and urgent methods are needed and are being taken to keep it in as sanitary a condition as possible.

Port sanitation is the first consideration, as the number of ships entering the port from all parts of the world is rapidly increasing, and the first line of defence to the town against disease is the sanitation of the port. This has been carried out in a most efficient manner during the year. In the town itself the streets have been made wider, so that air space is abundant, but the dust is objectionable and detrimental to health. The streets should, if possible, be watered more frequently to allay this nuisance. The houses of the poor still need much improvement, and attempts to make these more healthy and sanitary are making their mark. The scavenging is fairly good.

Faecal matter is still removed at night and buried. It need hardly be said that this is objectionable, and that some other method is desirable. Much has been done, but much remains to be done, with regard to the drainage of Colombo. Everywhere collections of stagnant water are to be seen, but though these would appear likely breeding grounds for anopheles and therefore for the spread of malaria, only *Culex* larvæ have up to the present been found. Government has sanctioned the modified system of drainage proposed by Mr. Mansergh, C.M.G.

The water supply derived from the Labugama reservoir has always been favourably reported upon by the City Analyst. Infectious cases, viz., smallpox and enteric fever, have been common.

Kandy, the capital of the Central Province, possesses a Municipality, and employs a medical man as Sanitary Officer. The drainage of the town is defective, but measures are under consideration for an improved system. The water supply is of good quality, but during a long drought is a source of some anxiety. The town itself is well scavenged and is lighted by electricity. The burial of night soil is the method adopted for the conservancy of the town.

Jaffna, the chief town of the Northern Province, possesses neither a Municipality nor a Local Board. Certain parts of the town are in a very crowded and insanitary state. There are two public latrines, which are not resorted to. The cesspit system is in vogue. The water supply is from uncovered wells. Sunlight and free circulation of air are interfered with by the houses being huddled together and by high cadjan fences. The foreshore and other places are fouled and polluted. Drainage requires attention.

Galle, the capital of the Southern Province, is still the most insanitary of the towns possessing Municipalities. Although a good many improvements have been effected as regards the drainage and conservancy, much yet remains to be done. The water supply is still derived from the Bikke reservoir; a system of filtration has not yet been arranged owing to the cost. The dry-earth system has been introduced in some parts of the town, and has been found to work satisfactorily. Although a good deal has been done as regards the drains in the Fort, they are still very defective in several localities.

Batticaloa, the chief town of the Eastern Province, possesses a Local Board, and the sanitary condition is said to be fairly satisfactory. The drainage is very bad, and the water supply equally so; the small supply of good water from wells is curtailed by the wells running dry during drought. The latrine arrangements are very defective; cesspits are used. As in *Jaffna* the foreshore and neighbouring jungles are polluted by human excreta.

Kurunegala, the chief town of the North-Western Province, is in fairly good sanitary condition, but its drainage and water supply are defective.

Anuradhapura, the principal town of the North-Central Province, formerly had a reputation for unhealthiness, but of recent years, owing to improved sanitary measures, the health of the inhabitants has wonderfully improved.

Badulla, the chief town of the Province of Uva, is a good specimen of what a sanitary tropical town should be, and is provided with a good water service by pipes. The town is well kept. The drainage, however, is defective.

Ratnapura, the chief town of the Province of Sabaragamuwa, possesses a Local Board, and is in a fair state of sanitation. The water supply is good.

Vaccination.—During the year 165,948 subjects were vaccinated; 152,106 were primary vaccinations and 13,842 re-vaccinations. Of the former, 126,500 were successful and 10,795 unsuccessful, and in 14,811 subjects the result of the operation was not known, as they failed to present themselves for examination on the appointed days. The percentage of successful cases to total inspected was 92·13. Of the re-vaccinations, 7,744 were successful and 2,721 unsuccessful, and the result was not known in 3,377 cases, as the subjects failed to re-present themselves for inspection. The percentage of successful to total inspected was 73·99. Five calf institutions were in operation during the year at Colombo, Kandy, Galle, *Jaffna*, and *Batticaloa* for the preparation of glycerinated calf lymph, which was distributed in sufficient quantities to all parts of the Island. The inhabitants of the Island are well protected against smallpox, and to this cause is due the prevention of the spread of this disease from the various foci that existed during the year. It is hoped that next year a large vaccine station in Colombo will be established, which will do away with the numerous outstation institutions.

The following tables give figures for 1900 and 1901 for the purpose of comparison :—

Table showing the Primary and Re-vaccination in the Island during 1900 and 1901.

Primary Vaccination :—				1900.		1901.
Number vaccinated	...	...	...	122,518	...	152,106
Successful	...	...	...	98,871	...	126,500
Unsuccessful	...	...	...	10,827	...	10,795
Unknown	...	...	...	12,820	...	14,811
Re-vaccination :—						
Number vaccinated	...	...	...	10,084	...	13,842
Successful	...	...	...	6,359	...	7,744
Unsuccessful	...	...	...	2,001	...	2,721
Unknown	...	...	...	1,724	...	3,377
Primary vaccination :—						
Percentage of successful to total inspected	...	...	...	90·13	...	92·13
Re-vaccination :—						
Percentage of successful to total inspected	...	...	...	76·06	...	73·99

Plague.—The Plague Committee is a Standing Committee consisting of the following members :—The Hon. Mr. F. R. Ellis, C.M.G.; the Hon. the Government Agent, Western Province; the Principal Civil Medical Officer; the Mayor of Colombo; the Hon. the Principal Collector of Customs (Secretary). It has held several meetings, and has revised from time to time the precautions instituted to combat an outbreak of this disease. This Committee is in reality a Port Sanitary Board, and any subject affecting quarantine and infectious disease arriving in Colombo is dealt with by it. All returns of plague from infected ports are received by the Committee, and telegraphic accounts of plague occurring in places adjacent to Ceylon are received regularly. The staff of Port Surgeons performed their duties with intelligence and promptitude, and were ever on the alert to discover disease among the arrivals at this port. Notwithstanding the strict supervision maintained, the travelling public from infected ports have not been inconvenienced, and no harsh or exasperating rules have been promulgated to interfere with their comfort or to prevent their landing. The disinfection of their baggage and of soiled linen has been well carried out by means of two Thresh's steam disinfectors. The services of a female Medical Port Officer have been discontinued. A new disinfecting station has been established on shore, and the hospital ship, which used to be employed for this purpose, has been handed over to the Police Department.

Systematic onslaughts on rats have been made from time to time in various parts of the Island, and particularly in Colombo at the Customs landing premises, and by the Mayor throughout the city, with good results. A Clayton fire extinguisher has been ordered for the disinfection of ships' holds.

All minor ports, with the exception of Kayts in the North, likely to be visited by native trading vessels from India, have been closed, and this arrangement has worked most satisfactorily. As a precautionary measure steam patrol boats have been employed round the coast.

The immigrant cooly traffic has not been interfered with, and several batches arriving from plague-infected parts of India have undergone the necessary period of quarantine at Ragama Camp, when, after proper disinfection of themselves and belongings, they have been drafted to their several estates.

III.—GENERAL.

MEDICO-LEGAL DUTIES.

During the year 1901, 264 analyses were conducted, of which 129 were judicial analyses, 27 were samples of kerosine oil, 12 were samples of fuel oil, 6 were samples of beer, and 17 were samples of water, spirits, &c., from His Majesty's Customs, Local Boards, and the Railway Department, and 73 were samples of water conducted at the request of the Government.

Of the 129 judicial analyses, 93 were undertaken for the detection of poisons and 36 for examination of stains. In the poisoning cases, arsenic was detected in 14 analyses, mercury in 2, datura in 3, canabis indica in 16, morphine in 2, sulphate of magnesium in 1, alcohol in 1, and in the rest of the analyses no poison was detected.

A synopsis of the analyses for the year in a tabular form is herewith appended :—

Synopsis of the Analyses for 1901.

Total, 264. Fees, Rs. 2,362·50.	Judicial	...	...	129	36	Mammal blood detected in	...	26	
						Spermatozoa	do.	...	1	
						No blood or seminal fluid detected in	...	9		
					93	Arsenic	detected in	...	14	
						Mercury	do.	...	2	
						Datura	do.	...	3	
						Canabis indica	do.	...	16	
						Morphia	do.	...	2	
						Magnesia sulphates	do.	...	1	
						Alcohol	do.	...	1	
						No poison	do.	...	54	
Total								...	129	
Kerosine oil	...	...	...	...	...	...	27		
Fuel oil	...	...	...	...	...	...	12		
Beer	...	...	...	...	...	...	6		
Water, spirits, &c., for His Majesty's Customs, Local Boards, and Railways...								...	17	
Analyses for Government purposes								73
Grand total								...	264	

ADMINISTRATIVE : HOSPITALS AND ASYLUMS.

During the year 1901, 66 hospitals and asylums were in operation, against 64 the previous year. A new field or parangi hospital at Maha-oya, a district hospital at Pussellawa, and another at Dimbula were opened last year. The new infirmary for 14 beds at the Leper Asylum was also occupied.

Numbers treated.—In the Civil and Lying-in Home Hospitals there were 43,949 cases treated with 4,219 deaths, being 2,043 cases and 484 deaths more than the preceding year. The daily average sick was 1,647·23, as against 1,679·10 the previous year.

In the Field Hospitals there were 4,680 cases treated with 156 deaths, against 4,364 treated and 154 deaths during the preceding year, being 316 cases and 2 deaths more than the preceding year. The daily average sick was 184·29, as against 181·78 during the previous year. The number treated in the five Immigrant Hospitals was 2,047, against 1,944 in the previous year. Of the total treated, the deaths numbered 90, or 11 more than the preceding year. The daily average sick was 84·45, as against 74·28 the previous year.

In the District Hospitals 14,816 cases were treated, against 13,785 during the preceding year. There were 3,511 deaths, against 2,284 in the previous year. The daily average was 844·27, against 771·78 the previous year.

Lunatic Asylum, Colombo.—During 1901, 124 patients were admitted into the Asylum, which with 494 remaining from the previous year made the total insane population 618, of whom 388 were males and 230 females. The daily average number of inmates was 481·05. Of the total treated, 52 were discharged recovered, 14 relieved, and 17 not improved. There were 72 deaths, and 463 remained

under treatment at the end of the year. Of these, 150 were maniacal and dangerous, 173 quiet chronic, 102 melancholic and suicidal, and 38 idiotic, paralytic, or epileptic.

The institution consists of 18 dormitories, 20 day-rooms and corridors used as day-rooms, and 133 single rooms. The water supply is drawn from the Labugama reservoir, which supplies the town. The quality is good and the quantity ample. There are 19 lavatories, 17 baths, and 19 latrines. The dry-earth system is carefully carried out. The number of patients secluded under lock and key was 6, and the number of times seclusion was resorted to was 55, and the longest duration in any single instance was six hours. There were thirteen cases of accidental injury to patients by themselves, three of injury to a patient by another patient, and none by attendants. The first case of suicide during the present Superintendent's tenure of office occurred during the year. Such patients as are well enough are given daily exercise, while others are confined to the airing courts. Outdoor sports (cricket and tennis) as well as indoor games (cards, bagatelle, musical instruments, &c.) are provided. A library is in existence, and those who can read are regularly supplied with books and papers. Two religious services were held in a large work-room, the average attendance being 128. The inmates of the Asylum are employed in gardening, trade, house work, &c., and the proceeds of their industry is formed into a fund, which at the end of the year amounted to Rs. 17,264.31 :—

Industrial Fund Account, 1901.

		Rs.	c.	Rs.	c.	Rs.	c.
Balance on 31st December, 1900 :—							
Cost of 4 per cent. Inscribed Stock	...	8,480	0	8,629	85		
Do. do.	...	4,000	0	4,400	0		
						13,029	85
Fixed deposit, Hongkong and Shanghai Bank	...			...		1,800	0
Current account do.	...			...		2,075	76
Cash in hand	...			...		80	45
							16,986 6
Receipts in 1901 :—							
		Rs.	c.				
Interest on current account	...	41	80				
Interest on fixed deposit...	...	81	0				
Dividends on Government Stock	...	499	20				
Sale of produce, &c.	...	937	94				
						1,559	94
Expenditure in 1901 :—							
General current expenditure	...	1,281	69				
						1,281	69
Balance Profit	...			...		278	25
				Total Funds	...	17,264	31
Invested, &c., as follows :—							
In 4 per cent. Ceylon Government Stock	...			8,629	85		
Do. do.	...			4,400	0		
						13,029	85
Fixed deposit, Hongkong and Shanghai Bank	...			...		1,881	0
Current account do.	...			...		2,332	85
Cash in hand	...			...		20	61
				Total	...	17,264	31

House of Observation for Suspected Lunatics.—There were four institutions of this nature at Colombo, Kandy, Galle, and Jaffna, into which were admitted for observation 198 patients, which, with 3 remaining from the previous year, made a total of 201, of whom 47 were transferred to the Asylum at Colombo, 144 were discharged, 2 died, and 8 remained under observation at the end of the year.

Leper Asylum, Hendala.—The Leper Asylum received 150 patients for treatment during the year, which, with 278 remaining from the previous year, made the total leper population 428. The daily average in the Asylum was 272.9. Of the total treated, 93 were discharged relieved, 16 not improved, 43 died, and there remained at the end of the year under treatment 276 patients. The Asylum has 296 beds. The water supply is ample and the quality pure and good. There are bathrooms in connection with the Asylum supplied with hot and cold water according to the requirements of patients. The dry-earth system is in use, the excreta being disposed of by incineration. A new ward with bathroom and latrines for 32 patients and an infirmary with 16 beds for sick patients were added during the year under review.

De Soyza Lying-in Home.—The total number of patients treated at this institution during the year was 499, against 521 in 1900 and 163 in 1890. Of these, 466 were discharged cured, 1 relieved, 4 died, and 19 were remaining under treatment at the end of the year. The daily average sick was 10.77. The percentage of deaths to total treated was .80 against 2.11 in 1900 and 3.08 in 1890.

In the Lying-in Home ten pupil midwives received training in 1901, of whom nine obtained certificates after passing a satisfactory examination.

The following operations were performed during the year :—

Forceps extractions	...	...	...	...	103
Version	...	...	...	...	15
Craniotomy	...	...	...	...	2
Evacuation	...	...	...	...	4
Removal of placenta	...	...	...	...	7
Acceleration of labour by water bags	...	...	...	...	3
				Total	134

Lady Havelock Hospital.—In this institution 1,030 patients were treated, against 934 in the previous year. Thirty-eight remained from the previous year and 992 were new admissions. The daily average sick was 32·5. Of the total treated, 768 patients were discharged cured, 137 relieved, and 27 not improved. There were 61 deaths, and 37 remained under treatment at the end of the year. Of the 1,030 patients, 256 were children (113 boys and 143 girls). There were 47 operations performed, with 2 deaths.

Police Hospital, Colombo.—645 patients were treated in the Police Hospital, of whom 631 were discharged after treatment, 1 died, and 13 remained at the end of the year. The daily average sick was 1,392. At the outdoor dispensary of this hospital 1,641 persons were treated during the year, who paid 1,903 visits.

Grenier Eye, Ear, and Throat Infirmary.—At this institution 4,336 cases were treated during the year, as against 3,676 in 1900, 3,165 in 1899, and 3,348 in 1898. The contributions during the year amounted to Rs. 98·43 in 1900, Rs. 71·75 in 1899, and Rs. 63·80 in 1898, and were of a purely voluntary nature.

Branch Hospitals.—Colombo, Kandy, and Galle are provided with a special hospital for the treatment of women suffering from venereal diseases. The total number of new cases admitted was 451, which, with 17 remaining from the previous year, makes a total of 468. Of these, 445 were discharged and 20 remained under treatment at the end of the year. Of the 468 females treated in the three Branch Hospitals, 34 were treated for primary syphilis, 77 for secondary syphilis, 65 for tertiary syphilis, 9 for inherited syphilis, 232 for gonorrhœa, and 51 for other diseases the result of venereal poison.

Jail Hospitals and Sick Prisoners.—The number of prisoners admitted during the year into the different jails in the Island was 13,265. The average daily strength of prisoners was 2,752·71. There were treated during the year in the several jail hospitals 4,638 prisoners, against 4,465 in the previous year. The deaths numbered 112, against 95 in 1899.

The following table gives the number of admissions, number of deaths, average strength, death-rate to admissions to hospitals, and to average strength for the past four years :—

Year.	Admissions in Hospitals.		Number of Deaths.		Average Strength of Prisoners.		Death-rate to Admissions.		Death-rate per 1,000 of Average Strength.	
1898	...	6,128	...	110	...	2,848·88	...	1·79	...	38·61
1899	...	4,362	...	95	...	2,591·53	...	2·17	...	36·65
1900	...	4,465	...	102	...	2,515·14	...	2·28	...	40·55
1901	...	4,638	...	112	...	2,752·71	...	2·41	...	40·69

Kalmunai Hospital Leper Wards.—At this institution 27 lepers were treated during the year, of whom 16 were discharged relieved, 1 died, and 10 remained under treatment at the end of the year.

Friend-in-Need Society's Hospital at Jaffna.—The Friend-in-Need Society's Hospital at Jaffna received 1,269 patients, which, with 45 remaining from the previous year, made a total of 1,314. Of these, 1,211 were discharged, 39 died, and there remained under treatment at the end of the year 64 patients. At the outdoor dispensary of this institution 6,231 persons were treated during the year, who paid 12,955 visits, and contributed voluntarily Rs. 837·40.

Kanatta Infectious Diseases Hospital.—At this institution 10 cases of infectious diseases remained from the previous year, and 395 were admissions, making a total of 405. Of these, 363 were discharged cured, 29 died, and remained in hospital at the end of the year. The death-rate was 10·24 per cent. Of the 405 patients, 204 were treated for smallpox, 188 for chickenpox, 177 for measles, 3 for whooping cough, 29 for mumps, and 53 for observation for smallpox. Of the 204 cases of smallpox, 35 died. Two cases of smallpox were remaining in hospital from the previous year.

Total Deaths.—The deaths numbered 8,092, against 6,500 in the previous year, showing an increase of 2,592. I subjoin a table showing the death-rate in the various hospitals and asylums in the Island for the year, as compared with the previous year. I have separated the death-rates among the mixed races and Malabars for purposes of comparison :—

Hospitals.				Mixed Races.		Malabars.		Total.	
				1900.	1901.	1900.	1901.	1900.	1901.
Civil	...	...	...	6·54	5·92	17·21	18·06	9·81	9·06
Field	...	...	...	3·30	3·08	8·05	7·40	3·52	3·33
Immigrant	...	...	...	2·54	1·86	7·41	10·48	4·06	4·39
District	...	...	...	5·17	6·28	22·92	28·98	17·80	23·69
Asylums	...	...	...	7·56	12·57	7·55	14·28	7·56	11·54
Total				6·00	5·62	19·52	22·94	10·31	12·18

The percentage of deaths to cases treated in the Civil Hospitals showed a slight decrease among the mixed races, and an increase of 1·39 among the Malabars. In the Field Hospitals the decrease among the mixed races and Malabars was slight. In the Immigrant Hospitals the decrease among the mixed races was slight, but among the Malabars there was an increase of 3·07. In the District hospitals there has been an increase of 1·11 among the mixed races and 6·06 among the Malabars. Taking all the Hospitals and Asylums together, there was a slight decrease among the mixed races, but an increase of 3·42 among the Malabars. The percentage of deaths to total treated was 12·18, against 10·31 the previous year.

Duration of Residence.—The longest time any one inmate stayed in hospital was 365 days. This was in the District Hospital at Dikoya, where the patient was under treatment for epilepsy.

Hospital Accommodation.—The accommodation in the hospitals for treatment of the sick was generally sufficient. Overcrowding sometimes occurred, especially in the General Hospital, Colombo, where the daily average sick was 506·31. The large number in excess had to be accommodated in the verandahs and passages. Patients were transferred to Urugodawatta, and 25 cases of incurables were sent to the Victoria Home for Incurables about the end of the year.

Water Supply.—With the exception of the following institutions, Mannar, Galle, Chilaw, Nikaweratiya, and Trincomalee, the water supply in all the hospitals was reported to be good, pure, wholesome, and abundant. Water for drinking purposes is, as a rule, boiled and filtered before use.

Bathrooms.—All hospitals are provided with separate bathrooms for males and females and furnished with tubs, which are filled with hot or cold water according to the requirements of the patients. Patients who can help themselves however prefer to bathe in streams, where there are such adjoining a hospital.

Drains.—There are no covered drains. The drains are all surface ones for carrying away the ward washings, rain, and storm water.

Sewerage.—The conservancy of the latrines is entirely on the dry-earth system, the excreta being removed daily and buried or incinerated at some distance from the hospitals.

Inspection.—The hospitals were all inspected either by me or the Colonial Surgeons of the respective Provinces. The number of these visits of inspection and the official designation of the visitors will be found given in the return of each institution. The books were produced when called for, and were generally found complete and made up to the date of examination. The reports of inspection by the Colonial Surgeons as well as those by me were forwarded to Government when necessary.

Food Supply.—The provisions for the various hospitals were supplied by purveyors on contracts approved by Government. The system works satisfactorily. The medical officers in charge of the respective hospitals examine the food before it is served out to patients, and reject such articles as do not come up to contract samples.

Dispensaries.—369 dispensaries were in operation. Of these, 207 were Civil, 45 District, and 117 Estate. They are distributed as follows:—In the Western Province 31, Central 52, Northern 38, Southern 35, Eastern 18, North-Western 25, North-Central 19, Province of Uva 21, and Sabaragamuwa 20. In the Civil and District Dispensaries there were treated 1,073,993 persons, against 821,174 in the previous year, who paid 1,371,005 visits, and contributed voluntarily Rs. 19,078·82. 117 estate Dispensaries were kept up on the estates by the planters, medicine being supplied free by Government, the resident dispenser, who is paid by the estate, being appointed on the recommendation of the Principal Civil Medical Officer.

Port Duties and Immigration.—The number of vessels which arrived at the port of Colombo was 3,039, against a total of 3,316 in the previous year, 2,562 being steamers, 3 sailing ships, and 474 native craft. The number of native traders was 70,439 and coolies 48,701. Included as traders were 60,408 men, 4,951 women, 3,844 children, and 1,236 infants. Of the coolies, 28,891 were men, 10,216 were women.

During the year one case of plague occurred on board the ss. Parramatta from Bombay. The case proved fatal a few hours before the arrival of the vessel at Colombo, and the body was buried at sea. The vessel was kept in strict quarantine and left for China. Six cases of smallpox, 2 of chickenpox, and 1 of measles were sent to the Infectious Diseases Hospital at Kanatta. The hospital ship was given over to the police, and disinfection is carried out at a station established at Kochchikada; two Thresh's patent steam disinfectors have also been fitted up.

Ragama Camp.—The total number of coolies who passed through the camp during 1901 was 45,823, against 134,134 during the previous year. There were four distinct outbreaks of cholera during the year. Six persons were attacked, all of whom died. These outbreaks occurred during the months of January, March, November, and December. Of the other diseases admitted into hospital, there were 4 cases of chickenpox and 9 cases of diarrhoea. Of the total number of coolies who passed through the camp, 1,890 persons were vaccinated and the rest either had marks of successful vaccination or of smallpox. The drainage system of the camp is efficient. The conservancy is carried out on the dry-earth principle, the excreta being disposed of by incineration. There is a good and ample water supply. A new camp for coolies is under construction.

De Soysa Bacteriological Institute.—Since its opening it has undertaken work of a diverse character, and is now supplying a long-felt want in the Colony by its researches in Bacteriological analyses of tissues, secretions, blood, &c., so indispensable to scientific diagnosis of diseases; and the Director, Dr. Joseph de Silva, who relieved Dr. H. M. Fernando, is consulted by Government Medical Officers and private medical practitioners for reports on specimens submitted by them on Bacteriological and allied subjects.

Medical College.—During the year 9 new medical students and 9 apothecary students entered the College. There were 76 medical and 52 apothecary students at the end of the year. The fees credited to revenue during the year amounted to Rs. 11,975·64. Dr. A. Chalmers, F.R.C.S., was appointed Registrar of the College on 22nd February, 1901, and he has already improved the College very materially.

Civil Medical Stores.—Dr. H. M. Fernando is in charge of this institution as Medical Superintendent. Mr. A. D. Cotton, the Chief Storekeeper, is assisted by two assistant storekeepers, two dispensers, and one clerk, besides a staff of 5 packers, 6 coolies, 1 instrument cleaner, and 1 carpenter. The drugs, chemicals, and instruments received from England amounted to Rs. 178,005·71, from India Rs. 575·20. The cost of articles purchased from the Government Stores and the local market for the preparation of drugs in the Medical Stores came to Rs. 5,574·75, while the cost of repairing surgical instruments amounted to Rs. 85, and that of transport and postage to Rs. 9,575·21, cost of articles purchased locally Rs. 6,135·76, and contingencies and petty expenses Rs. 960·76. The cost

of quinine powders issued to Government Agents and others amounted to Rs. 4,527.13, the sale of medicine to Government Departments and others Rs. 692.50, and sale of medicine to planters Rs. 2,255.23. The sale of unserviceable articles realized Rs. 482.41, and the value of surgical instruments lost and paid for by the officers of the Department amounted to Rs. 46.87.

In 1899 this institution expended under various heads the large sum of Rs. 268,740.56. In 1900 the expenditure diminished to Rs. 238,022, and in 1901 it amounted to Rs. 200,538 only, being nearly 30 per cent. less than the expenditure two years ago, in spite of the fact that new hospitals and dispensaries were opened, and the Railway and Irrigation Departments consumed large quantities of drugs.

Nursing staff :—

Anglican Sisters	...	...	...	...	3
Roman Catholic Sisters	...	...	...	...	17
Superintendent of Nurses	...	...	...	...	1
Matrons	...	...	...	...	24
Nurses	...	...	...	...	32
Pupil Nurses, Lady Havelock and Kandy Civil Hospitals	...	...	...	...	11
Total					88

Nursing.—I find it very difficult to get enough pupils for training; the Ceylonese of suitable social position do not take to it. Improved nursing is desirable in the paying wards, General Hospital, and more religious Sisters are necessary for the general wards, especially for night duty.

Strength of the Medical Department.—The strength of the Medical Department was as follows :—1 Principal Civil Medical Officer and Inspector-General of Hospitals, 1 Assistant Principal Civil Medical Officer, 1 Registrar, Medical College, 7 Colonial Surgeons, 1 Superintendent, Lunatic Asylum, 1 Surgeon in charge of the General Hospital at Colombo, 2 Medical Women, 24 Assistant Colonial Surgeons, 27 Deputy Assistant Colonial Surgeons, 46 Sub-Assistant Colonial Surgeons, 24 Probationers, 4 Health Officers, 248 Apothecaries, 1 Chief Medical Storekeeper, 1 Chief Inspector of Vaccination, 6 Inspectors of Vaccination, and 108 Vaccinators.

The change in the Department is the appointment of Dr. A. J. Chalmers as Registrar, Medical College.

The expenditure of the Department, exclusive of working hospitals under the Medical Aid Ordinance, amounted to Rs. 1,339,923.80, including exchange compensation, against Rs. 1,301,865.91 in the previous year. Under Personal Emoluments and Allowances the expenditure was Rs. 313,442.35, including exchange compensation, against Rs. 308,195.45 in 1900. The expenditure under Other Charges was Rs. 1,011,842.41, under Harbour Service Rs. 1,803.22, and under the vote for Plague Precautions Rs. 12,835.82.

The receipts on account of paying patients in hospitals amounted to Rs. 45,225.15. The collections at the Civil Outdoor Dispensaries was Rs. 18,367.36. The cost of medicines issued to the Estates Branch of the Department amounted to Rs. 110,605.77, while the sale of medicines and superfluous articles, Medical College fees, &c., amounted to Rs. 41,682.62. Deducting the receipts under the heads above specified from the expenditure, the net expenditure was Rs. 1,124,042.90.

The following statement shows the expenditure and receipts as compared with 1900 :—

EXPENDITURE.	1900.		1901.		Increase.		Decrease.	
	Rs.	c.	Rs.	c.				
Personal emoluments	286,985	45	290,055	6	3,069	61	—	—
Personal Allowances	21,210	0	23,387	29	2,177	29	—	—
Total	308,195	45	313,442	35	5,246	90	—	—
Other charges	70,541	1	76,106	73	5,565	72	—	—
Hospitals and Dispensaries	664,796	36	723,315	89	58,519	53	—	—
General	238,022	92	200,912	39	—	—	37,110	53
Total	973,360	29	1,000,335	1	64,085	25	37,110	53
Harbour service	4,063	13	1,803	22	—	—	2,259	91
Plague precautions	16,247	04	12,835	82	—	—	3,411	22
	20,310	17	14,639	4	—	—	5,671	13
Grand Total	1,301,865	91	1,328,416	40	69,332	15	42,781	66
RECEIPTS.								
Amount received from paying patients in hospitals	33,830	12	45,225	15	11,395	3	—	—
Collections at dispensaries	23,643	0	18,367	36	—	—	5,275	64
Cost of medicines issued to estate branch institutions	111,122	81	110,605	77	—	—	517	4
Sales of medicines and superfluous articles, and College fees	46,124	52	41,682	62	—	—	4,441	90
Total	214,720	45	215,880	90	11,395	3	10,234	58
Net Expenditure	1,087,145	46	1,112,535	50				

Prisoners of War.—During the year new camps for Prisoners of War have been established at Ragama, Urugasmanhandiya, and Hambantota, and this Department has supplied all the necessary medical officers, apothecaries, attendants, drugs, and surgical appliances, &c., and it is responsible for the sanitary condition of the camps.

With the exception of the continuance of enteric fever at Diyatalawa, there has been no outbreak of infectious disease among Prisoners of War, and their health has been most satisfactory. The epidemic of enteric fever lasted until the 27th December, when the last case was discharged; the last case admitted was on the 5th December; since December there have been no fresh cases. The total number of enteric cases at Diyatalawa from the commencement of the outbreak until its termination was 711, with a death-rate of 8.72 per cent. The death-rate to total strength from all causes among Prisoners of War for the year was .078 per 1,000. The death-rate to total strength from diseases other than infectious diseases and accidents was .03 per 1,000. I would refer to the annual reports submitted by the medical officers in charge of the several camps attached to this report.

ESTATES BRANCH.

During the year 1901 there were 1,753 estates scheduled to 33 districts and 30 sub-districts, with 17 District Hospitals and 27 District Dispensaries and 13 Civil Hospitals and Dispensaries.

The following are the districts and sub-districts with the number of estates scheduled to each:—Avisawella District 46, sub-district Hanwella 10, sub-district Bandaragama 11, sub-district Horana 4; Kalutara District 40, sub-district Horawella 4; Kandy District 69, sub-district Galagedara 14, sub-district Kadugannawa 20, sub-district Hanguuranketa 3; Elkaduwa District 21, sub-district Wattagama 29; Kelebokke District 43; Dikoya District 62, sub-district Bogawantalawa 31, sub-district Watawala 39; Maskeliya District 73; Gampola District 52, sub-district Pussellawa 34; Lindula District 56, sub-district Agrapatana 43; Dimbula District 54; Matale District 81, sub-district Rattota 33, sub-district Gammaduwa 18; Teldeniya District 22, sub-district Rangalla 26; Deltota District 40; Nawara Eliya District 37, sub-district Nann-oya 18; Maturata District 30; Ramboda District 35; Uda Pussellawa District 32; sub-district Mulhalkele 3, sub-district Maspane 1; Nawalapitiya District 49, sub-district Dolosbage 36; Kotmale District 18; Morawak Korale District 181; Balapitiya District 16; Elpitiya District 1; Udugama District 13; Badulla District 59, sub-district Pingarawa 21, sub-district Passara 10; Lunugala District 13, sub-district Madulsima 29; Monaragala District 10; Ilaputale District 17, sub-district Bandarawela 8, sub-district Haldummulla 23, sub-district Koslanda 27; Kurunegala District 43, sub-district Rambukkana 2; Ratnapura District 23; Balangoda District 33; Rakwana District 25; Kegalla District 22; Karawanella District 64, sub-district Kitulgala 18, sub-district Aranayaka 18.

To attend to the medical wants of the above the following officers were employed:—Deputy Assistant Colonial Surgeons 15, Sub-Assistant Colonial Surgeons 10, and Apothecaries 28.

During 1901 there were 12,017 estate labourers treated in the District Hospitals and Civil constituted District Hospitals, against 11,967 in 1900. Of these, 3,530 died, a death-rate of 29.37 per cent. Of the mixed races, 14,147 were treated, of whom 875 died, a death-rate of 6.11 per cent.

In the Civil Hospitals worked partly as District Hospitals, the death-rate of estate labourers was 28.51 per cent., whilst in the District Hospitals it was 29.67 per cent. The highest death-rate, 46.25 per cent., among estate labourers occurred in the Civil Hospital at Galle, and the lowest, 9.52 per cent., in Mulhalkele. The admissions into the former were 80, into the latter 34.

The total number of days the estate labourers stayed in hospital was 294,713, an average of twenty-four days. Of these, 191,107 persons were paid for by estates, the rest being charged to the fund.

The total number of days mixed races stayed in District Hospitals was 40,657, an average of twelve days.

The total number of estate labourers treated at Outdoor Dispensaries was 78,047. The total number of estate labourers treated on estates was 34,255.

The total number of births reported from estates was 8,837, of which 4,438 were males, 4,231 were females, and 168 were still-births.

The number of deaths reported from estates was 12,087, of whom 6,226 were males, 5,858 were females, and in 3 cases the sex was not stated.

The expenditure under the Medical Aid Ordinance amounted to Rs. 617,204.82, including exchange compensation, and receipts to Rs. 308,922.66, derived from the following sources:—Export duty Rs. 134,800.97, hospital charges for treatment of coolies Rs. 65,278.70, recovered for visits paid to estates Rs. 21,802.50, sale of unserviceable and superfluous articles Rs. 172.42, medicines sold to superintendents of estates Rs. 2,325.81, medicines sold in bulk to superintendents of estates Rs. 2,325.81, and prescriptions compounded Rs. 2,715.18, dispensary collections Rs. 1,281.47, cost of maintenance, medicine, and funeral expenses of other than estate labourers Rs. 72,905.43, recoveries for maintenance of others Rs. 2,526.40. The nett expenditure was Rs. 308,282.16. 117 dispensaries are now established in the planting districts.

Appended are Tables I. and II. showing the receipt and expenditure of the Estates Branch of the Department.

ALLAN PERRY,
Principal Civil Medical Officer and
Inspector-General of Hospitals.

APPENDIX.

PROVINCIAL REPORTS.

(1) WESTERN PROVINCE.

This Province is under the supervision of Colonial Surgeon G. P. Schokman, M.B., C.M., whose report is subjoined:—

Population.—The estimated population of the Western Province for the year was 932,632. The number of births and deaths registered during the year was 30,216 and 20,892 respectively.

Prevalence of Sickness.—The general health of the Province has been excellent. No epidemics of malarial fever were reported, and there was therefore no necessity to employ itinerating medical officers or distribute quinine powders, as was done in the past years. This absence of outbreaks can be accounted for by the uniform distribution of the rainfall and the less severity of the monsoon rains. In my last report I pointed out that the district of Negombo was the most sickly and malarial part of the Province, and that no less than 30,919 had been treated out of a total for the Province of 65,398. Though fever did prevail to some extent in this district, there has been a marked diminution in their numbers, the whole district having been responsible for 10,234 cases.

Dysentery and Diarrhœa.—There was an outbreak of dysentery, which lasted for a month, during the last quarter of the year, in some of the villages of the Hewagam korale, viz., Henpita, Jaltara, Bodatuwa, Tarala, and Hanwella. It probably arose from the contamination of the wells in these low-lying villages during the floods of the north-east monsoon rains. This disease also occurred in some of the villages in the Horana district, though not in a virulent form. Four cases of acute diarrhœa occurred on Keratuhena estate.

Cholera.—At the beginning of the year three cases of sporadic cholera occurred in the town of Negombo. These were the last of the outbreak which began in December, 1900. Two of the cases proved fatal. The total number of coolies placed in quarantine at Ragama, as having arrived from infected areas in India, was 2,496. Out of this number six cases of cholera occurred, one in January, two in March, two in November, and one in December. All the six cases died. The excellent arrangements obtaining at the camp prevented any spread of the disease.

Smallpox.—This disease prevailed in the city of Colombo mostly throughout the year. The first case reported was in January from St. Sebastian street. The outbreak continued till the end of September. There were no reports during October and November. Two cases were admitted in December from the north of the city. The origin of the disease was traced to recent arrivals from India. With two cases remaining over from the previous year, there were treated at Kanatta 204, with 35 deaths. Of these, six were admitted from on board ship. None of the latter died. A qualified lady doctor was detailed for a house-to-house visitation in Moor street during the height of the epidemic; she was not successful in discovering any concealed cases.

Smallpox in Villages.—The prolonged outbreak in Colombo resulted in infecting several villages, viz., Akurugoda, Mahamulla, Henamulla, Mathupitiya, Bandaragama, and Moratuwa in the Panadure district; Beruwala and Baruhupola in the Kalutara District; Gangodawila, Kotte, Watara-pola, and Wellawatta in the Colombo District. The following places were also infected:—Migahawatta, Butpitiya, Eppamulla, Hendala, Mugurugampola, Suriyagama, Henaratgoda, Veyangoda, Mirigama, Ja-ela, Kochchikada, and Negombo town.

To combat this widespread distribution of the disease, besides the ordinary vaccinators, a special man was put on duty in the infected villages, guards were placed over the infected houses, and all cases in the outskirts of the city, more especially Peliyagoda, and in the town of Negombo, were removed to hospital.

Those treated in their homes were attended to by the District Medical Officers. With these energetic measures, in a little over two months the disease was stamped out from the villages.

The following are the number of cases of smallpox, modified smallpox, and chickenpox treated and died in this Province during 1901:—

				Total treated.		Total died.
Smallpox	...	...	...	225	...	58
Modified smallpox	...	...	...	86	...	1
Chickenpox	...	...	...	419	...	1
Total				730		60

Sanitary Condition of the Chief Towns.

Colombo.—The health of the town, but for the occurrence of smallpox, continued good during the year. There was no cholera. No noteworthy improvements were effected in the drainage or sanitation of the town.

Panadure.—The sanitary condition of the town is not so good as it might be. There is an absence of drainage and public latrines. The water supply is from wells, and to all appearances good and abundant. The cemetery in the heart of the town used for many years has been closed, and a general cemetery opened at a distance from habitations.

Moratuwa.—This town contains a population of 40,000, and is densely overcrowded and insanitary. Houses are crowded together in a small area without any respect to decency or the comfort or well-being of others. There are no public latrines, nor is the dry-earth system in vogue.

House refuse, liquid excreta, and refuse from stables are indiscriminately thrown about. There is an insufficiency of wells, the majority of them are shallow and liable to pollution. A private association is reported to look after the sanitation, but the establishment of a Local Board of Health is imperative. General cemeteries are required outside the town; those in the midst of the population should be closed. More roads are needed, and they should be opened from the beach straight inland, so as to ensure a free circulation of air.

Kalutara.—There is a Local Board here. Some improvements have been effected in the town. The cesspits attached to the public latrines have been filled up and replaced by dry-earth latrines. Side drains have been built along several streets, and the general drainage of the town extended.

Negombo.—This town is overcrowded, and contains a population of 19,949. There is a Local Board, but improvements are progressing slowly. It is low and swampy. Water supply bad. Drinking water is procured from wells outside the town, and is of good quality.

Avisawella.—There are no public latrines. Drainage good, but requires extension. Water supply good.

Minuwangoda.—The example set by this rising place in possessing a Sanitary Board might well be followed by more important places as Moratuwa and Panadure. The drainage and water supply are good, but public latrines are wanted.

Other Institutions.

The Jails.—The convict prisons were maintained in a good sanitary condition. The drainage of Welikada was extended. The water supply in the Colombo prisons is from the town service. The water is boiled for drinking. At Mahara water is drawn from a well, and is of good quality. Here, too, the water is boiled.

The general health of the convict prisons was satisfactory. There was overcrowding owing to a considerable increase in the prison population. The average strength of the prisons for the years 1899, 1900, and 1901 was 1,476·97, 1,388·49, and 1,712·50; the average sick 90·32, 102·39, and 120·63; and the percentage of deaths to the strength 4·06, 4·39, and 4·67. The total number of deaths during the year was 80, as against 62 in the previous year. The excess in the number of deaths is mainly attributable to the increase in the strength of the jails over that of the previous year, and to two outbreaks of influenza, followed by pneumonia, which claimed 33 out of the 80 deaths. The prevalence was particularly noticed in the Mutwal prison in the months of August and September, when several deaths occurred. Certain suggestions for improving the ventilation of the wards and the alteration of the hour for unlocking the prisoners have been made, which are being carried out, and it is hoped will have the effect in lessening or at least modifying these recurrences in the future. Dysentery and diarrhoea, the scourge of the prisons, continued to prevail in the same proportions as in previous years. The Mahara jail was enlarged by the addition of four wards, and the accommodation increased to 600.

Neboda.—This hospital almost exclusively admits estate labourers, and the mortality is always high. There were 261 deaths, with a percentage mortality of 30. The Medical Officer states that the estates contributing mostly to the mortality are Gikiyanakanda and Pantiya.

Negombo.—The accommodation provided at this hospital is more than sufficient for present requirements of the district. The total number of admissions were 798, against 1,002 of previous year, and the percentage of deaths to total treated 8·37 against 8·86. The largest mortality was from diarrhoea, malarial cachexia, and debility.

Vaccination.

53,310 persons were vaccinated in the Western Province (45,439 primary and 7,871 re-vaccinations), against 34,764 (30,673 primary and 4,091 re-vaccinations) in the preceding year. This large increase of 18,546 in the work done was due to the absence of fever epidemics in any part of the Province.

A classification of the primary vaccination into races gives the following figures:—Sinhalese 36,278, Tamils 3,654, Moors 2,893, Malabars 1,273, Burghers 594, Malays 153, Europeans 21, others 373. Many of the European and Burgher children are vaccinated by private medical practitioners, and these do not appear in our registers.

Of the 45,439 primary vaccinations, 24,778 were males and 20,661 females; of these, 259 were infants, 39,793 children, and 5,387 adults. The ratio of success to those inspected were for primary vaccinations 95·91, re-vaccinations 80·34.

In the city 16,497 persons were vaccinated, an increase of 5,830 over the previous year. At the itinerating vaccine depôt 3,908 persons were vaccinated direct from the calf.

(2) CENTRAL AND NORTH-CENTRAL PROVINCES.

These Provinces are under the supervision of Colonial Surgeon J. Craib, M.D., whose report is subjoined:—

In submitting my annual report for the year 1901, I have the honour to state that the health of the two Provinces under my supervision has been very satisfactory.

There have been no epidemics of infectious diseases during the year. A few sporadic cases of smallpox occurred in the planting districts, the source of infection in each case being from the coast of India. They were isolated and segregated, and within a very short time the disease was stamped out. Measles and chickenpox were reported from different districts throughout the year.

Population.

The estimated population for the year, as per figures obtained from the Registrar-General, is as follows :—

			Central Province.	North-Central Province.
Population (at the middle of 1901)	...	...	622,817.	79,054
Births registered, 1900	...	...	21,262	3,168
Do. 1901	...	...	20,129	3,797
Deaths registered, 1900	...	...	18,299	2,902
Do. 1901	...	...	18,719	3,041
Birth-rate per 1,000, 1900	...	...	34.8	40.2
Do. 1901	...	...	32.3	48.3
Death-rate per 1,000, 1900	...	...	29.9	36.8
Do. 1901	...	...	30.1	38.5

Prevalence of Sickness.

The diseases most prevalent during the year under review were malarial fevers, parangi, diarrhoea, dysentery, pneumonia, rheumatism, catarrhal affections, and cutaneous diseases.

Malarial Fever is endemic in the North-Central Province, but prevails to a great extent after the burst of the north-east monsoon, the types most prevalent being quotidian and tertian. The greatest sufferers were those living in low-lying and swampy districts. There was no epidemic of fever in either of the Provinces during the year under review, necessitating the employment of additional officers on this particular duty.

Parangi.—This disease prevails to a great extent in the North-Central Province and in the adjacent parts of the Central Province. Malaria and parangi prevail side by side, and with the decrease of malaria, and the improvement in the general health of the inhabitants, parangi will necessarily decrease.

Diarrhoea and Dysentery prevailed during the wet season, and is attributable to the changes of temperature, and frequently to partaking of unwholesome food and impure water. It never assumed an epidemic form.

Bronchitis, Pneumonia, and Rheumatism prevailed during the cold and wet seasons, caused by the sudden variations of temperature.

Anchylostomiasis occurs, and is often treated in Malabars from estates. From my experience I have every reason to believe that it is undoubtedly an imported disease. It has now found its way to the villages adjoining estates, the cause being pollution of water by faecal matter.

Meteorological Conditions and their effect on Public Health.

During the wet months of the year in the Central Province bowel complaints, rheumatism, and catarrhal affections prevailed to some extent.

In the North-Central Province malarial fever occurs after the burst of the north-east monsoon. To a great extent it is endemic in the North-Central Province.

Particular Diseases.

Smallpox was imported into Dikoya, Kelebokka, Maskeliya, Maturata, and Dimbula districts. Twenty-five cases were reported, with 4 deaths. On every occasion the Colonial Surgeon inspected the scenes of the outbreak and took all precautions, with the result that in no instance did it assume an epidemic form.

There were no cases of cholera reported in the two Provinces under my charge.

Chickenpox was reported from time to time in the Central Province.

Measles.—A few sporadic cases occurred in the Provinces.

Mumps.—A few cases were reported from the Kandy jail and the towns.

Enteric Fever.—This disease has, on the whole, been on the decrease during the year.

Sanitation.

The general sanitary condition of the two Provinces under my charge remains much the same as last year, and is fairly satisfactory.

In the villages there is no proper drainage system, no water supply, and no proper latrine accommodation. The Board of Health of the Central Province is year by year gradually improving the sanitary condition of larger bazaars, and is thus introducing more efficient measures, both as regards their general surroundings as well as the conditions under which the bazaar populace exists. The necessity of observing general cleanliness is being regularly and extensively enforced by the supervision exercised by the medical officers of the different stations. Overcrowding is reduced as much as possible, stagnant pools in the vicinity of dwelling-houses are drained, and swamps are filled up, thus obviating any tendency to the existence of malarial diseases. Similar pools and swamps, however, that form the permanent features of the low-lying parts of the Provinces cannot be likewise treated. The drainage of the hilly portions of the Provinces is, on the whole, very satisfactory.

Water Supply.—Natural springs and rivers furnish a sufficient supply for domestic purposes, which is comparatively free from surface pollution. The same cannot, however, be said of wells where they exist, as they are seldom protected from surface contamination.

The following are the chief towns and bazaars of the Central Province :—

Kandy.—Water supply good and abundant, and derived from an unpolluted source. Drainage remains unimproved. A scheme for its improvement was submitted to Government, but, beyond taking levels and surveying the town, it has not advanced any further.

Alleys : These are characteristically insanitary.

Latrines : Owing to the absence of facilities the dry-earth system cannot be introduced throughout the town, but whenever possible undesirable cesspits are either abolished or rendered less insanitary.

Waste Lands: The condition of the uncultivated lands adjoining houses has been materially improved by the systematic removal of all decaying vegetation and undergrowth.

Lake: The sides of it were deepened, and the silt was removed by means of a dredger during the year.

Bakeries, Laundries, Eating-houses, and Slaughter-house: These are regularly visited by the Municipal authorities, and are kept in a fairly sanitary state.

Scavenging: There has been a general improvement with regard to the conservancy of the town.

Infectious Diseases: Every precaution is taken by the Municipal authorities for the due notification of all infectious diseases occurring in the town.

Matale.—Drainage defective. Water supply insufficient, especially towards the Chetty boutiques, where water pipes might be laid with considerable advantage. Numerous cesspits still exist, and they should be replaced by the dry-earth system by degrees. There is no overcrowding.

Gampola.—Drainage is still unimproved. Water supply is deficient, and a scheme for its efficient supply is under consideration. Three public latrines were erected during the year. Cesspits continue to exist. No overcrowding.

Nawalapitiya.—Water supply is pure and abundant, and is conducted into the town by pipes. The drainage was improved to some extent, though much still remains to be done in this respect. Two public latrines were erected. No overcrowding.

Nuwara Eliya.—The water supply is pure and abundant. The drainage continues to be defective. The latrine accommodation is insufficient. There is no overcrowding.

Hatton.—A well provides at present the water supply of the town, and this is frequently polluted by surface drainage. A scheme for providing a pure and better water supply is under consideration. The drainage is defective. Two Horbury latrines have already been provided, but these have proved insufficient, necessitating the erection of two more. There is slight overcrowding.

Dikoya.—Water supply ample, but is open to improvement. The drainage has been receiving attention. Latrine accommodation is insufficient. Scavenging of the town has been given on contract, and is satisfactorily performed. No overcrowding.

Maskeliya.—Water supply is sufficient. Drainage defective, and no improvements were effected during the year. Latrine accommodation absent. There is no overcrowding.

Kotiagala.—The drainage system is under improvement. Water supply sufficient, but requires improvement. Latrine accommodation is insufficient. No overcrowding.

Talawakele.—Water supply for flushing purposes is insufficient, but a scheme for bringing a better and larger supply from an adjoining estate to meet all requirements is under consideration. Latrine accommodation is insufficient. There is slight overcrowding periodically.

Lindula.—Drainage defective. Water supply sufficient, but requires improvement. Latrine accommodation insufficient. No overcrowding.

Tillicoultry.—Water supply is sufficient for flushing purposes, if properly laid on. Drainage defective. Latrine accommodation nil. No overcrowding.

Nanu-oya.—Drainage is bad, and no improvement has been effected since my last report. Water supply both deficient and impure. No overcrowding. Latrine accommodation insufficient.

Kadugannawa.—Drainage was improved during the year. There is no latrine accommodation, which is very much required. Scavenging is daily attended to. Water supply is insufficient. No overcrowding.

Rattota.—Drainage is defective. Latrine accommodation is absent. Water supply sufficient. No overcrowding.

Dambulla.—Drainage defective. Latrine accommodation is much needed during the season of pilgrimages. Water supply insufficient. No overcrowding.

Wattegama.—Drainage should be improved, and latrine accommodation provided. Water supply is insufficient. A scheme is being considered to provide the town with pure water. No overcrowding.

The chief bazaars in the North-Central Province are Anuradhapura and Mihintale.

Anuradhapura.—Drainage is still defective, but it is yearly being improved. Latrine accommodation is still insufficient. The town is overcrowded only during the pilgrimages, at which time temporary latrine accommodation is provided, and every precaution is taken with regard to the conservancy of the town.

Mihintale.—Nothing has been done since my last report for the improvement of the drainage and for providing latrine accommodation, as well as supplying the town with pure water.

Vaccination.

During the year under review vaccination was carried on in the Central and North-Central Provinces. In the Central Province at fifteen dispensaries by the medical officers and apothecaries in charge, and in the North-Central Province at two dispensaries by apothecaries. The female, vaccinator operated amongst the Moorish and the other communities in the towns of Kandy, Matale, Gampola, Nawalapitiya, and Hatton.

The total number vaccinated for the year was males 11,115, females 10,675, total 21,790. There were 712 re-vaccinations with a percentage of 58·22 successes and 21,790 primary vaccinations with a percentage of 95·18 successful results.

Animal Vaccine Depôt.

This has proved a continued success. During the year 56 calves were vaccinated, with 1,420 successful vesicles. 1,452 tubes of lymph were collected, and 1,436 were issued to the several vaccinators in the two Provinces, and, except in a few isolated cases, their use showed very satisfactory results.

Jails.

Jails and Jail Hospital, Kandy.—The number of prisoners accommodated in the jails at Kandy was as follows :—

			No. of Prisoners.		Daily Strength.
Bogambra Jail	...	...	2,402	...	409.57
Old Jail	...	...	2,104	...	61.46

There was no overcrowding in either of the jails. The diseases most prevalent amongst the prisoners were malarial fever, bowel complaints, respiratory diseases, and eye affections. Chicken-pox was imported from outside and assumed an epidemic form; these cases were at first transferred to the infectious diseases hospital, but when the accommodation was no longer available the prisoners were isolated in the association ward. During the epidemic the transfer of prisoners to and from the jail was stopped. Sixty-eight cases of conjunctivitis were treated during the year.

The general health of the prisoners during the year was, on the whole, satisfactory. Nineteen prisoners were transferred on recommendations of Medical Boards to other jails. The number treated during the year was 634. The daily average sick was 15.58. The percentage of deaths to total treated was 2.20.

Jail, Anuradhapura.—During the year the number confined in this prison was 175. The daily average was 13.36. Thirty-one cases were treated during the year. The average sick was .66. Diseases most prevalent were dysentery, ague, conjunctivitis, diarrhoea, malarial cachexia, and debility. There has been no death in this jail since April, 1896.

Jail, Nuwara Eliya.—The health of this jail has been satisfactory. Forty-two cases were treated during the year, percentage of deaths to total treated being 4.76, daily average sick being .80.

Hospitals and Dispensaries.

Most of the institutions in the two Provinces were visited by me at least once in the year, and some of them several times. The following institutions require rebuilding, viz., Dikoya, Kelebokka, and Uda Pussellawa. All the others are in a fair state of repair.

The following new hospitals were opened during the latter end of the year, viz., Pussellawa and Dimbula. The new hospital at Maturata will be opened early in 1902.

The temporary wards at Matale and Gampola are in a dilapidated condition, and should be replaced by buildings of a permanent nature. Two new wards were erected by the Railway authorities at Anuradhapura hospital for the treatment of the sick employés of the Railway Extension during the year. A new dispensary has been constructed and will be opened early in 1902 at Madugoda.

Nursing.

I deeply regret to record the death of Sister Maude, the Lady Matron of the Government Civil Hospital, Kandy, which occurred during the voyage to England. Under her supervision most of the nurses in the Central Province were trained. She took a great interest in her work, and was much respected by all who came in contact with her. The vacancy caused by her death was filled up by Sister Eustacia, whose place was taken by Sister Stella.

(3) NORTHERN PROVINCE.

This Province is under the supervision of Colonial Surgeon H. A. Moraes, L.R.C.P. and L.R.C.S., whose report is subjoined :—

I have the honour to submit my report of the Northern Province for the year 1901.

Population, Births and Deaths, &c.

The population of the Province for the year has been estimated at 352,938. The number of births registered was 14,587 and deaths 8,967. The birth-rate per 1,000 was 41.33, and the death-rate 25.40.

The following table furnished by the Provincial Registrar gives particulars for each of the three districts :—

			Jaffna.		Mannar.		Mullaittivu.
Population	...	{ 1901	312,867	...	24,885	...	15,186
	...	{ 1900	307,016	...	25,396	...	15,174
Births	...	{ 1901	12,985	...	942	...	660
	...	{ 1900	11,723	...	1,059	...	686
Deaths	...	{ 1901	7,134	...	1,185	...	648
	...	{ 1900	7,259	...	1,031	...	576
Birth-rate per 1,000...	...	{ 1901	41.1	...	37.85	...	43.46
	...	{ 1900	38.1	...	41.69	...	45.21
Death-rate per 1,000...	...	{ 1901	22.1	...	47.61	...	42.67
	...	{ 1900	23.6	...	40.59	...	37.96

The above table shows that the population has increased by 5,352 over that of the previous year. The Jaffna District shows an increase of 5,851 and the Mullaittivu District of 12; while the Mannar District shows a decrease of 511.

The number of births also exceeded that of the previous year by 1,119. The Jaffna District is the only one of the three districts which shows an increase, viz., 1,262; but the Mannar District shows a decrease of 117, and the Mullaittivu District a decrease of 26.

The number of deaths shows a slight increase, being 8,967 against 8,866, an increase of 101. The Jaffna District is the only one which shows a decrease, viz., of 125; while the Mannar District shows an increase of 154 and the Mullaittivu District an increase of 72. The first and second quarters of the year in the Mannar and Mullaittivu Districts were those in which the largest mortality occurred, and it was due to the prevalence of fever, chest, and bowel complaints.

The birth-rate per 1,000 in the Jaffna District shows an increase of 3, and the death-rate a decrease of 2.5; in the Mannar District the birth-rate shows a decrease of 3.84, and the death-rate an increase of 7.02 per 1,000; and in the Mullaittivu District the birth-rate a decrease of 1.75 and the death-rate an increase of 4.71.

Prevailing Diseases.

The most prevalent diseases were malarial fevers and their sequelæ, diseases of the digestive and respiratory systems, parangi, rheumatic affections, ulcers, and venereal diseases.

Malarial Diseases.—The principal of these is fever. It prevails more or less throughout the year, but more especially towards the beginning of the first and the end of the last quarters. It was slightly in excess of the previous year. The returns from the several hospitals and dispensaries show that 40,831 cases were treated, against 39,845 the previous year, or an increase of 986. This works out about 115 per 1,000 of the estimated population. It was generally of the intermittent type, chiefly quotidian, though cases of the remittent type also occurred. 9,502 cases were treated at the seven hospitals in the Province and 31,329 at the several dispensaries. The largest number was at Pallai, viz., 4,893, and then Valluvettitturai 2,668, Murungan 2,213, Sillavaturai 2,202, Jaffna 1,964, and Mankulam, Mannar road, 1,568.

Dysentery and Diarrhœa were reported from all the stations, and they were slightly in excess of the previous year. The number treated was 3,133.

Ulcers and other Skin Diseases were also reported from all the stations.

Respiratory Diseases occurred in many stations. The chief of these, pneumonia, was reported from twenty-five stations, the largest numbers being from Vavuniya and Pallai.

Venereal Diseases.—Valluvettitturai, as usual, heads the list with 165, then follow Kankesan-turai and Pallai with 89 each.

Parangi.—This disease still prevails to a great extent, especially in the Wanni. Cases were reported from twenty-two stations.

The number of cases treated was less than the previous three years, being 1,582, against 1,869 in 1898, 1,667 in 1899, and 2,220 in 1900. Of the 1,582 treated this year, 528 were in hospitals and 1,054 at the dispensaries.

The prevalence of the disease is attributed by the several medical officers to bad food, bad water, and insanitary habits of the people.

Leprosy is not prevalent in this Province. Only 7 cases were treated in the hospitals and dispensaries.

Anchylostomiasis is not prevalent in this Province, the only station where it is found to any extent being Valluvettitturai, from where 26 cases were reported.

Epidemic Diseases.—I regret to report that both cholera and smallpox broke out in the Province. Kayts was unfortunately visited by both the epidemics, and Achchuvelly by cholera, and Valluvettitturai by smallpox, where, however, there was a solitary case.

Relative Mortality in the different Seasons.

There are practically two seasons in this Province, the wet and the dry. The wet season begins with the setting in of the north-east monsoon in October and continues till December, when the nights become chilly and dewy and the days begin to get warm. The dry season begins with the setting in of the south-west monsoon in May and lasts till September, though occasional showers of rain are not uncommon during this period. The dry season is the healthiest.

The first quarter is the unhealthiest period of the year, and the mortality is highest then. The second quarter comes next, and the mortality begins to rise in the fourth quarter.

Meteorological Conditions and other Causes affecting the Public Health.

The climate of the Northern Province is generally hot and dry. The monsoon rains reduce the temperature to some extent, but the public health suffers at this season owing to the outbreak of fever.

General Sanitary Condition of the Province.

The only town in the Province in which some system of sanitation is carried on is Jaffna, and even here the system is open to vast improvement. Such a large, thriving, and populous town as this—the chief town of the Province, and which will soon have a railway—is without a Municipality or even a Local Board.

The water supply of Jaffna is very unsatisfactory. The chief and only source is wells. Most of these are seldom cleaned. With the exception of a very few, the water of which is fairly good, that of the others is hard, brackish, and undrinkable.

Vaccination.

Vaccination was carried on throughout the year. The number of vaccinators employed was seven. The work of the vaccinators was frequently inspected by the Inspector of Vaccination and found to be satisfactory. Vaccination was also carried on by the several medical officers and apothecaries at their respective stations.

During the year 13,780 subjects were vaccinated, which is less by 1,416 than the previous year. Of these, 7,075 were males and 6,705 females; and 13,116 children and 664 adults. Of the total number, 8,577 were vaccinated by the vaccinators and 5,203 by the medical officers and apothecaries. There were altogether 11,780 successful, 1,389 unsuccessful, and 611 unknown. The number of re-vaccinations was 574, of which 380 were successful and 194 unsuccessful. The percentage of successful primary vaccinations was 85.48, and of re-vaccinations 66.20.

The preparation of calf lymph at the dépôt was carried on throughout the year, with satisfactory results.

Other Observations.

Jail.—The Jaffna jail is the only one in this Province. There is accommodation for 217 prisoners. The hospital consists of two wards, with six beds in each. There is no separate hospital accommodation for females.

The total number of admissions into the jail was 410, being less than the previous year by 200. Of these, 201 were local convictions, 189 from other prisons, and 20 on confirmation of sentence.

There were 61 admissions into hospital, compared with 74 the previous year. Of these, 10 were for malarial fevers and 7 each for dysentery and diarrhoea. The others were for ordinary ailments. Two deaths occurred. The general health and sanitary condition of the jail was very satisfactory.

Plague Precautions.—The precautions which were taken in 1899 were rigorously adhered to. No Indians, whether passengers or crew, are on any account allowed to land. There were three prosecutions for passengers attempting to land. The total number of vessels inspected at Kayts was 823.

Hospitals and Dispensaries.—There were 2,345 admissions into the hospitals in the Province. The daily average was 95.50, ranging from 2.37 at Pesalai to 21.85 at Mullaittivu. The average residence was 12.55, the average at the different hospitals being 10 to 17. Point Pedro hospital was overcrowded throughout the year, and Vavuniya on a few occasions. The total number of deaths was 106, ranging from 1.64 per cent. at Point Pedro to 6.62 per cent. at Mannar.

At the dispensaries in charge of apothecaries 61,354 received treatment, and at those attached to hospitals 19,962, making a total of 81,316 persons, who altogether paid 129,673 visits.

(4) SOUTHERN PROVINCE.

This Province is under the supervision of Colonial Surgeon W. G. Keith, M.B., C.M., whose report is subjoined :—

Hospitals	...	{ Civil	...	...	...	...	5
		{ District	...	...	...	...	1
Dispensaries	...	{ Civil	...	...	...	...	32
		{ District	...	...	...	...	3
House of Observation	...		...	...	...	...	1
Jails	...		...	...	...	...	4
Estimated population	...		...	...	...	...	561,315
Birth-rate per 1,000	...		...	...	...	...	41.584
Death-rate per 1,000	...		...	...	...	...	26.610
Number of successful vaccinations	...		...	...	...	...	19,769
Number of estates scheduled to hospitals and dispensaries	...		...	...	...	...	48
Number of cases of smallpox	...		...	...	...	...	8
Number of cases of cholera	...		...	...	...	...	Nil

The estimated population of the Southern Province for 1901 and for 1900 are given below, and will show the increase or decrease in the birth- and death-rates :—

Year.	Estimated Population.	No. of Births.	No. of Deaths.	Birth-rate per 1,000.	Death-rate per 1,000.
1900	540,902	23,931	15,152	44.242	28.012
1901	561,315	23,342	14,937	41.584	26.610

The general health of the Province during the year was satisfactory, and there were no outbreaks of any disease in an epidemic form. No cholera appeared in the Province, and only a few cases of smallpox, which were at once stamped out. All these cases had been introduced from Colombo.

There was the usual prevalence of malarial fever at certain seasons of the year in certain stations, and dysentery appeared in some localities, also at certain seasons to a great extent, but could not be said to be epidemic, and the mortality did not appear to be unusual.

Malarial fever seems to prevail, as usual, after the monsoon rains, especially during the north-east monsoon. The general character of the fever during the year under review was milder than in the year previous, and it did not prevail to such a great extent. In Tissamaharama and Hambantota it was severe in the first and last quarters of the year, but even here there was an improvement compared with the previous year.

Dysentery.—This disease prevailed in some districts more than others, and especially in Balapitiya, Udugama, and Weligama. An itinerating officer was employed in these districts till the disease disappeared. He was thus employed on two occasions, from January to May and in October and November. The number reported by him was 198. The Medical Officer, Balapitiya, draws attention to the fact that dysentery prevailed about the same time, and followed closely the characters presented by malarial disease, in its incidence, decrease, and decline, and this has been noticed before.

Parangi is reported from several districts to be on the decline and of a milder type, due no doubt to the general improvement in sanitation, and the earlier attention to the cases by the medical officers at the dispensaries. Matara, Weligama, Hakmana, and Akuressa were the districts where the disease was most prevalent.

Anchylostomiasis.—This disease was prevalent chiefly in estate districts, introduced no doubt by immigrant coolies. I notice, however, that the Medical Officer of Tangalla has reported a large number of cases as treated at the dispensary there, the persons seeking relief there being chiefly Sinhalese. The largest number of cases were treated at Deniyaya amongst Malabars from the estates, and caused a good deal of mortality. The disease also prevailed amongst coolies in the Elpitiya estate district. I directed the medical officers' attention to this subject, and requested them to impress on the superintendents of estates the necessity for perfect sanitation of the cooly lines and their surroundings, and special attention being paid to immigrant coolies freshly arrived, as regards the latrine accommodation and prevention of contamination of the water supply.

Measles appeared chiefly in the Weligama and Nagoda districts.

Chickenpox.—This disease prevailed from time to time.

Smallpox.—Of this disease, there were in all 8 cases in the Province during the year. They were single cases in different centres, and it is a notable fact that in not one of the instances did the disease spread, although the cases were seen mostly at a late stage.

At the dispensaries the most prevalent diseases treated at various stations appear to have been dysentery, malarial fever, rheumatic affections, and parangi.

Leprosy.—The number of lepers in the Province reported by the different medical officers was 22, but there will no doubt be more accurate information on this subject when, according to the provisions of the new Ordinance, all suspected cases are reported to the medical officers and inspected by them at the orders of Government.

The mortality has not been great during the year, as the general health has been satisfactory. It was greatest during the months when fever and dysentery occurred, namely, the first and last quarters of the year.

The general sanitary condition of the Province is, on the whole improved, but a good deal remains to be done, especially in the outlying districts, where the people are apathetic, and headmen do not appear to insist on their attention to the surroundings. The general complaint of the medical officers is that sanitary requirements are unattended to, gardens are allowed to be overgrown with jungle, accumulations of filth allowed to exist, absence of proper wells and a good water supply, want of latrines, and the contamination of surface wells by the drainage of polluted gardens, and the want of proper burial places.

Of the chief towns in the Province, Galle is looked after, as to its sanitary wants, by the Sanitary Officer of the Municipality, who reports that the general health during the year was satisfactory. A few cases of measles and chickenpox occurred in each quarter, and some cases of dysentery in the last quarter. In the first quarter a house was engaged, and is now a house of observation, where cases that were in contact with two of the cases of smallpox already referred to by me were removed. In the third quarter the two cases of smallpox that occurred at Kaluwella and Gintota were discovered after they had arrived from Colombo, and the prompt measures taken prevented the spread of the disease. The Fort is being gradually improved as to its sanitation, two new streets having been opened, and thus the dry-earth system being enabled to be introduced into a good many more houses. A good deal has still to be done to improve the state of matters outside the Fort. The sea beach, which extends along the Matara and Colombo roads, is a good deal polluted, and public latrines are much needed.

Steps were taken during the year to improve the surroundings of the reservoir at Bikke by the cleaning of the catchment area and freeing it from weeds, &c.

Matara.—The sanitary state of this town is, on the whole, satisfactory.

Tangalla.—This town is also in a fairly satisfactory sanitary condition, but the water supply is very defective, and at times of drought much inconvenience has been caused.

Hambantota.—This town has been much improved recently by the addition of new buildings, but a good deal is still required to be done to improve the drainage. Public latrines are also required and a good supply of water. The present supply from surface wells at the foot of the sand dunes is precarious, and the water somewhat brackish.

Balapitiya.—The Sanitary Board was established during the year, and already there are some signs of improvement. Lamps have been supplied, and the streets are now lit at night. An Inspector has been appointed, and it is to be hoped that the place will soon be in a much more sanitary state than was the case in former years.

Hospitals.

Government Civil Hospital, Galle.—In this hospital malarial fever and malarial cachexia and dysentery were treated throughout the year. The mortality was higher in the second half of the year. The highest mortality was from dysentery, malarial cachexia, diarrhoea, dochmias duodenalis, and phthisis. The humid atmosphere during the south-west monsoon, giving rise to chills, was the cause of an increase in respiratory and digestive disorders.

Several much-needed improvements are now about to be carried out, the chief being a new ward on the site of the old kitchen, which will add to the accommodation for females on the ground floor, and the conversion of a ward upstairs into nurses' quarters; also the erection of a new kitchen and enclosing the premises with an addition to the boundary wall. It is proposed also to improve the drainage and latrine arrangements, which are defective.

Matara Civil Hospital.—In this hospital parangi, ulcers, malarial fever, and malarial cachexia were the chief diseases treated. Some minor alterations and improvements have been effected here.

Tangalla Hospital.—Parangi, injuries, malarial fever, and malarial cachexia were chiefly treated here. A surgical ward and dispensary and apothecary's quarters, which have been much needed, are now about to be erected, and will be a decided improvement to the hospital.

Hambantota Hospital.—Malarial fever and malarial cachexia, parangi, dysentery, and diarrhoea were the chief diseases treated here.

Balapitiya Hospital.—Here the diseases chiefly treated were malarial fever and malarial cachexia, dysentery, and diarrhoea. The largest number of patients were for injuries.

Deniyaya District Hospital.—The patients chiefly treated here were labourers from the estates in the district, and the diseases were chiefly dysentery (104 cases, with 75 deaths), malarial fever and malarial cachexia, parangi and diarrhoea, and dochmias duodenalis. Of the last-mentioned disease, there were 106 cases treated, with 44 deaths. The mortality is due to the fact that the cases are generally too far advanced for treatment to have any effect.

Jails.—There were four jails in the Province during the year, those at Galle, Matara, Tangalla, and Hambantota, and the hospitals attached to them were attended to by the medical officer of the station, except that of Galle, of which Dr. Pestonjee is the medical officer. In the latter part of the year the Hambantota prison was converted into a camp for the prisoners of war.

Kaluwella Hospital for Women.—This is a lock hospital, where 103 patients were treated, the diseases being of the usual character.

House of Observation, Galle.—There were 40 inmates in this institution during the year, and mania was the chief disease. The number transferred to the asylum was 20.

Infectious Diseases Hospital, Galle.—The cases treated here were smallpox, chickenpox, and measles, 13 being treated, with 1 death from confluent smallpox.

Plague Hospital.—During 1901, as in the year previous, no cases of plague were admitted. One seaman from a vessel in quarantine was kept here under observation till the number of days for quarantine were over.

The buildings are in good order and always in readiness. Arrangements are being carried out to have proper disinfection of coolies and others working on vessels in quarantine. A building known as “Trinity House” is being fitted up, and a disinfecter has been supplied.

Vaccination.—Twelve vaccinators were employed vaccinating in the Province during the year. A female vaccinator was stationed in the Galle District and worked chiefly amongst the Moorish community in house-to-house vaccination. A calf vaccinator is connected with the vaccine establishment, and he vaccinated regularly at the outdoor dispensary under the supervision of the medical officer. Besides these vaccinators, at each dispensary in the outstations vaccination was carried on once a week.

The total number of vaccinations in the Province during the year was 24,440, with a percentage of successful cases of 79.65.

The animal vaccine establishment has been worked satisfactorily. Lymph supplies have been issued to medical officers and vaccinators regularly.

The state of vaccination in the Province I consider, on the whole, to be satisfactory. I have no doubt that the people are well protected, especially the populous places, from smallpox. I have frequently on my travels on inspection duty in the interior noticed in passers-by the satisfactory marks of vaccination, and make it a point to examine the arms of adults and children whenever possible in villages, and I have been satisfied with the large numbers showing marks of satisfactory vaccination. It is also a notable fact that, though cases of smallpox of a confluent type occurred in different localities during the year under review, as well as in the previous year, there was no spread of the disease amongst the population.

(5) EASTERN PROVINCE.

Hospitals .	...	{ Civil	...	...	...	...	3
		{ Leper	...	...	...	...	1
		{ Field	...	...	...	...	1
Dispensaries	...	{ Permanent	...	...	...	...	11
		{ Visiting	...	...	...	...	10
Area of Province, square miles			...	...	...	...	4,037
Population	...	...	...	...	...	...	174,226
Birth-rate per 1,000	...	...	...	...	...	...	43.16
Death-rate per 1,000	...	...	...	...	...	...	31.98
Number of cases of cholera in 1901			...	...	...	...	Nil
Number of cases of smallpox in 1901			.	...	...	...	Nil
Number of successful vaccinations			...	...	...	...	6,896

This Province has been under the supervision of Colonial Surgeon J. H. Ebell, L.R.C.F. and L.R.C.S., for a period of seven months only, as he assumed duties as Colonial Surgeon on the 2nd June :—

Return of Population.

Year.	Population.	No. of Births.	No. of Deaths.	Birth-rate per 1,000.	Death-rate per 1,000.
900	170,423	7,278	5,318	42.70	31.20
901	174,226	7,515	5,572	43.13	31.98

From the above table it will be seen that there has been an increase of 3,803 over the population at the end of 1900. Batticaloa shows an increase of 1,557 and Trincomalee 2,246.

The total number of births in the Province exceeded the deaths by 1,943. On comparing the total number of births and deaths registered, I find that there has been an increase under each head in 1901, but the birth- and death-rates for the two years 1900–1901 are about the same.

Prevalence of Sickness.

The general health of the Province during the year under review should be considered to be on the whole very satisfactory. The diseases most prevalent were malarial fevers and their sequelæ, parangi, and catarrhal affections.

Malarial fevers prevail throughout the whole Province, and large numbers have been treated both in the Trincomalee and Batticaloa Districts. During the year malarial fever assumed an epidemic form at Kattankudi, a Moorish village about 4 miles from Batticaloa, where there was a sharp outbreak. This village is a densely populated one and overcrowded, within an area of about $\frac{1}{4}$ of a square mile ; there are about 2,157 houses—or more properly huts—inhabited by 9,418 persons. The disease was at its height about the end of April, and it was found necessary to employ additional officers to itinerate and afford relief to the sufferers. The total number of fever cases treated at the Kattankudi dispensary during the whole year was 6,774, of which no less than 5,221 sought relief during the three months March to May. In addition to this number, during the same period the vaccinator and officer doing itinerating duties treated 3,484 cases, making a total of 8,705 treated during the epidemic.

There were smaller outbreaks of fever in the Akkarai pattu, one of the southern divisions of the Batticaloa District, in the early part of the year, where a vaccinator was employed on fever duty, and another during December in the Kottiyar pattu of Trincomalee.

In the hospitals and dispensaries of the Province, of the total number of patients treated, viz., 103,593, no less than 37,798 were cases of malaria.

It has been, I think, quite established that the mosquito is a factor, if not the chief cause, of the distribution of malaria, by conveying into the human system the germs of the disease ; and this Province, which to a great extent is low-lying, abounds in paddy fields, marshes, tanks, and pools, which afford ample breeding ground for this pest, and it is not surprising that malaria should be so generally prevalent. I am afraid prophylactic measures to check the spread and prevalence of this disease will be a costly undertaking, and I see no prospect of any immediate measures being taken to bring about so desirable a result. I am trying, however, to impress upon the officers in the Province the advantage to be gained, at all events in checking to some extent the periodical outbreaks

among the more populated villages, by preventing the formation, and the filling up, of stagnant pools and hollows, the clearing of a sufficient space around the villages of all low jungle, and the timely treatment by quinine of those affected. We may reasonably hope that some good results may follow the adoption of these measures.

Parangi.—This disease comes next in the order of prevalence. It has been reported from every district in the Province, and affects, as far as I can see, all classes and nationalities, and does not spare even the fairly well-to-do sections of the various communities. Perhaps the type of disease is noted to be more severe in the interior or “vannam,” which is chiefly populated by the Sinhalese. The disease is kept up and allowed to spread, as the people appear to be quite indifferent. The healthy mix freely with the sick, they bathe in the same pools, which also provide them with their supply of drinking water, their clothes are all washed in common, very often in the only tank, where also the cattle are watered ; more attention to sanitation, an improved water supply, better food with more variety, and attention to segregation of the sick should be the measures adopted to check the spread of this disease.

Dysentery and Diarrhoea prevailed generally, but did not at any time assume an epidemic form. These complaints are probably due to the unwholesome food and impure water during the dry months, and to climatic changes during the wet.

Catarrhal Affections.—These prevail during the wet months, but during the year did not assume large proportions, nor were they of a severe type.

Leprosy.—This loathsome disease is very prevalent in the Kalmunai District, but cases are reported from Batticaloa and some of the neighbouring villages as well. The Medical Officer, Kalmunai, is of opinion that the disease is spreading, judging from the number of cases reported to him. The total number in the district is said to be 94, but it is possible that there may be even more, as the anæsthetic type may not have been readily recognized. Dr. Nicholas is of opinion that the “disease in some of the cases has been contracted from other than relatives, and that there is no trace of the disease in their own families or among the close relations.”

The following table gives the number of cases of malarial fever and parangi treated at the various institutions in 1901 :—

Total treated at Hospitals and Dispensaries.		Full Total treated.		Malaria.		Parangi.
Nindur	...	3,902	...	3,782	...	—
Trincomalee	...	5,291	...	754	...	15
Batticaloa	...	7,924	...	3,278	...	234
Kalmunai	...	13,635	...	3,680	...	426
Toppur	...	906	...	200	...	48
Muttur	...	2,878	...	750	...	159
Akkaraipattu	...	3,866	...	1,451	...	485
Eravur	...	18,706	...	6,819	...	642
Tamblegam	...	1,781	...	459	...	11
Pottuvil	...	6,785	...	2,046	...	182
Kiniyai	...	900	...	138	...	42
Nilaveli	...	461	...	108	...	2
Kadraveli	...	898	...	167	...	192
Vallaichchena	...	12,393	...	4,965	...	838
Paddiruppu	...	4,998	...	643	...	444
Kattankudi	...	12,694	...	6,774	...	202
Kokoticholai	...	1,454	...	515	...	472
Maha-oya	...	2,408	...	747	...	405
Padiyatalawa	...	296	...	145	...	16
Nadukadu	...	895	...	166	...	411
Tirukovil	...	522	...	211	...	22
Total		103,593		37,798		5,248

Relative Mortality in different Seasons.

I regret I am unable to say anything positive about the relative mortality in different seasons, as I have no reliable data to go upon, but judging from the prevalence of disease I should say the death-rate was higher during the rainy seasons.

Meteorological Conditions and their effect on Public Health.

There are two distinct seasons in the Province, the hot and dry from March to October, and the rainy season from October to March. The rainfall during the latter period is generally very heavy, and the country is flooded in many parts. During the months of January and February there is, besides, a heavy fall of dew. It is during this time that malarial fevers and chest affections chiefly prevail. The dry months are undoubtedly the healthiest.

Remarks on Particular Diseases.

Cholera.—Not a single case, I am glad to say, occurred in any part of the Province, although in the previous year it prevailed in an epidemic form in Batticaloa.

Smallpox.—One case was reported as such from Tamblegam, but proved on inspection to be a case of chickenpox.

Other Infectious Diseases.—Chickenpox and measles, as in previous years, were reported from different stations during the last quarter, but these diseases did not prevail to any great extent.

General Sanitary Condition of the Towns and Districts.

The general sanitary condition of the district is far from satisfactory. There are vast tracts of low-lying lands, and marshes and stagnant pools and swamps are formed in the neighbourhood of villages during the rains. The country being generally flat, the drainage is very defective every-

where. The smaller villages are in a fairly sanitary condition, but in no other Province are there so many thickly populated villages as in this, and in such villages as Kattankudia, Muttur, Toppur, Vallaichena, and Eravur, chiefly peopled by Moors, the laws of sanitation are set at defiance. Huts low and dark, imperfectly ventilated, crowded together, built up anyhow within high fences, which shut out all light and fresh air. Compounds used as open latrines, and dirt and rubbish allowed to accumulate in heaps. There is no system of drainage, in consequence of which rain water accumulates and stagnates in all hollows. Water supply in most places from tanks and shallow wells, and in many places the one tank serves all purposes: the parangi-stricken are allowed to bathe, clothes are washed, and cattle watered. I am glad to report that Sanitary Boards have been established at some of these crowded villages named, and measures have been adopted to improve their condition.

Batticaloa.—The sanitary condition is fairly satisfactory, but there is room for improvement. There is a Local Board of Health, but the revenue of the Board is small, and no big scheme for the improvement of the town can be taken in hand.

New roads are to be constructed, opening out crowded quarters, and allowing freer circulation of air, and latrines are to be provided. Of course a great deal more needs to be done, but no funds are available. The whole town needs a better drainage system, but owing to the flat nature of the land some difficulty is experienced.

Water Supply.—There is an ample supply drawn from wells, but these are apt to fail towards the end of the dry season. There are a few public wells provided, but only the people living in the vicinity draw their supplies from them.

Trincomalee. — Dr. Johnson reports as follows regarding the sanitary condition of Trincomalee :—

Drainage.—The drainage of the place is in a lamentably defective condition. The side drains are dilapidated, and along the main thoroughfares they are so obliterated and choked that there is absolutely no flow, and storm water stagnates in pools, and impurities soak into the soil and become an ever present source of danger. The drains are actually used as receptacles for filth.

Overcrowding.—Some parts of the town are very much overcrowded, and especially the fishers' quarters.

The dwellings of the poor of the town are crowded generally, and all sanitary laws are neglected. The houses are low, and shut in by high fences erected only a couple of feet from the threshold, shutting out light and ventilation.

Latrine Accommodation.—Six public latrines are provided for a population of over 11,000. These latrines, however, are hardly ever used; every private compound in the native town is, without exception, a latrine, and every open space, including the esplanade and sea shore, is polluted daily.

Water Supply.—The town is liberally supplied with wells, these existing in every compound, and there are public wells provided as well. The latter are guarded from pollution, but the former are constantly exposed to this danger by the practice referred to above.

Kalmunai.—Dr. Nicholas reports that the sanitary condition of the district is on the whole satisfactory, though there is much room for improvement. Drainage is said to be defective owing to the ground being low and surrounded by paddy fields and swamps.

Vaccination.

The staff consists of an Inspector of Vaccination, one calf vaccinator, and eight native vaccinators. Of these, two Moormen and one female vaccinator are employed in carrying on operations amongst the Moors exclusively. Vaccination is also carried on weekly at thirteen dispensaries. The total number vaccinated in 1901 was 8,186, as against 6,338 in 1900. On the whole, vaccination in this Province is in a satisfactory condition, and the inhabitants are well protected from smallpox.

Other Observations.

Batticaloa Port.—This port is open only during the south-west monsoon, *i.e.*, for about seven months of the year.

There were in 1901 240 arrivals, *viz.*, 30 steamers and 210 native vessels. The majority of these trade only along the coast, but a fair number came from the southern ports of India, such as Negapatam, Tondi, Madras, Porto Novo, &c. A few were quarantined as they were carrying foul bills of health. No infectious cases were detected during the year's inspection. No disease was imported. The total number of persons inspected during the year was: crew 3,192 and passengers 2,823.

Hospitals and Dispensaries.

There are three civil, one field, and one leper hospital, and 21 dispensaries, *viz.*, 11 permanent and 10 visiting. Of the hospitals, one field hospital at Maha-oya in the Bintenna pattu was opened in May last, and judging from results has supplied a long-felt want. One dispensary was opened at Tirukovil, which is visited by the apothecary of Karunkodditivu. All these institutions are doing good work, and are much appreciated by the people. 1,436 patients were treated at the hospitals during the year and 102,157 at the dispensaries.

Leper Hospital, Kalmunai.—This hospital, established in 1896, has only accommodation for sixteen patients. It needs to be added to considerably if the provisions of the new Leper Ordinance are to be strictly enforced, as there are many cases of leprosy reported from various parts of the Province, chiefly in and about Kalmunai.

Jails.

There are two jails in the Province, one at Trincomalee and the other at Batticaloa; the former is only a lock-up. During the year a considerable addition to the number of prisoners at Batticaloa was made by the transfer of all the convalescents from Hambantota. At Batticaloa prison 32 cases were treated, with 2 deaths from malarial cachexia and diarrhoea respectively.

(6) NORTH-WESTERN AND SABARAGAMUWA PROVINCES.

These Provinces are under the supervision of Colonial Surgeon E. de Livera, M.B., C.M., whose report is subjoined :—

The population of the North-Western Province at the end of 1891 was estimated to be 35,796, and of the Province of Sabaragamuwa to be 323,547.

There were 14,581 births and 9,093 deaths in the North-Western Province, and 12,527 births and 9,977 deaths in the Province of Sabaragamuwa.

Prevalence of Sickness.

The diseases chiefly prevalent were malarial fevers, malarial cachexia, parangi, dysentery and diarrhœa, anchylostomiasis, venereal diseases, skin affections, and respiratory diseases.

Malarial fevers were prevalent to a much less extent than in the previous year, and there were no outbreaks of fever necessitating the employment of itinerating medical officers to visit the villages and treat the sick.

There were about 44,265 cases treated for malarial diseases in the North-Western Province, as against 78,237 in the previous year; and there were about 23,000 cases treated in the Province of Sabaragamuwa in 1901, as against 42,674 in the previous year. The type of fever prevalent has been chiefly the quotidian and tertian. There was a much larger number of cases of fever treated in the North-Western Province than in the Province of Sabaragamuwa.

The months during which fever was most prevalent were the wet months of the north-east monsoon, during the first and fourth quarters of the year. In Kurunegala, however, the largest number of cases appears to have been treated during the second quarter of the year, when the rainfall was not so heavy as in the first quarter.

Dysentery and Diarrhœa.—These diseases appear to have been more prevalent in 1901 than in the preceding year. The cases treated in the hospitals and dispensaries were larger in number, and outbreaks of dysentery occurred in several places.

Parangi.—The largest numbers were treated for this disease in the North-Western Province.

Anchylostomiasis.—The largest numbers treated for this disease were at the district hospitals of Karawanella, Balangoda, Rakwana, and at the dispensaries at Kitulgala and Kalawana in the Province of Sabaragamuwa, and at the hospitals of Kurunegala and Marawila in the North-Western Province. There does not seem to be any decrease of this disease.

Pneumonia.—This is a disease to which a large proportion of deaths in the hospitals is due. There were 214 cases treated in the hospitals, of which 79 proved fatal.

Leprosy.—There were only four cases of leprosy treated.

Measles and Chickenpox.—216 cases of chickenpox and 120 cases of measles were reported from different parts of the Provinces, but many more must have occurred without being reported.

Smallpox.—An outbreak of smallpox occurred at Ratnapura in the Province of Sabaragamuwa in April last. The origin of the outbreak could not be traced. Six persons were attacked, of whom four died. The spread of the disease was prevented by the rigorous measures taken to isolate the patients and contacts, and the systematic carrying on of vaccination and re-vaccination. Another outbreak of smallpox occurred in the District of Puttalam, in the North-Western Province, in August last, the first case occurring in a pilgrim to St. Anna's Church at Talawila from Colombo. Thirteen cases occurred in all, and of them two proved fatal. The disease was prevented from spreading in the town by the prompt measures taken by the medical officer, but a case occurred at Mudukadu, about 9 or 10 miles distant from Puttalam. Three cases of smallpox were reported from Nainamadam and Lunuwila, in the Marawila division of the Chilaw District.

Cholera.—There was no epidemic of cholera in either of the Provinces.

Meteorological Conditions.

The rainfall during 1901 was not so heavy as in the previous year in the Province of Sabaragamuwa, but in the North-Western Province it was a little higher in 1901. In the former the heaviest rainfall occurred in the second quarter (58.80 inches), while in the latter rainfall was heaviest in the first quarter (41.48 inches). In Karawanella, which may be taken to represent Sabaragamuwa, there was a total rainfall of 260.45 inches in 1901, as against a rainfall of 183.75 inches in the preceding year. In Kurunegala, which may be taken to represent the North-Western Province, the total rainfall was 94.96 inches in 1901, as against 88.33 inches in 1900.

The general health of both the Provinces was on the whole satisfactory. There were 5,984 patients treated in the hospitals of the North-Western Province during 1901, as against 5,952 in 1900; and 8,198 patients treated in the hospitals of the Province of Sabaragamuwa in 1901, as against 8,229 in the preceding year.

The following tables show the numbers treated, the number of deaths, the daily average sick, and the percentage of deaths to total treated in the hospitals of the two Provinces during the years 1900 and 1901 :—

North-Western Province.

Name of Hospital.			Numbers treated.		Average Daily Sick.		Number of Deaths.		Percentage of Deaths to Total treated.	
			1900.	1901.	1900.	1901.	1900.	1901.	1900.	1901.
Kurunegala	...	...	3,200	3,189	115.39	102.50	282	247	8.70	7.74
Puttalam	...	...	630	661	22.34	28.51	35	48	5.55	7.36
Chilaw	...	...	242	289	9.52	9.08	29	26	11.57	11.11
Marawila	...	...	764	816	34.83	34.25	55	50	7.19	6.12
Nikaweratiya	...	...	640	579	31.95	25.35	29	25	4.53	4.32
Dandugamuwa	...	...	436	450	10.49	20.05	30	12	6.88	2.66
Total	...	...	5,952	5,984	232.52	219.74	460	408	7.72	6.81

Province of Sabaragamuwa.

Name of Hospital.	Numbers treated.		Average Daily Sick.		Number of Deaths.		Percentage of Deaths to Total treated.	
	1900.	1901.	1900.	1901.	1900.	1901.	1900.	1901.
Ratnapura ...	1,174	1,002	50.50	51.63	107	154	9.11	15.36
Karawanella ...	1,996	2,274	167.80	161.35	315	427	15.78	18.77
Balangoda ...	1,590	1,293	83.47	92.59	111	225	6.98	10.46
Rakwana ...	824	1,025	35.96	38.42	82	138	9.35	13.46
Kegalla ...	954	738	47.81	42.58	111	91	11.63	12.33
Kolonna ...	1,070	1,193	36.99	35.97	13	11	1.21	.92
Godakawela ...	621	637	24.65	27.69	20	27	3.38	4.01
Total ...	8,229	8,198	447.18	450.23	759	1,073	9.10	10.75

In the twenty-three dispensaries and branch dispensaries of the North-Western Province there were 104,877 persons treated in 1901, as against 150,235 in the previous year; and in the twenty-one dispensaries and branch dispensaries of the Province of Sabaragamuwa there were 67,933 persons treated in 1901, as against 101,742 in the previous year.

General Sanitary Condition of the Provinces.

The general sanitary condition of both the North-Western Province and the Province of Sabaragamuwa remains the same as in the previous year.

Kurunegala.—Nothing has yet been done to improve the drainage and water supply. There are many pools and puddles which require filling up.

Puttalam.—A good and sufficient water supply is still wanted here. Draining the town properly does not seem to be practicable owing to the land being low and flat, but attempts should be made to fill up all the swamps and hollows lying near houses and round the hospital.

Chilaw.—Much has been done to improve the sanitary condition of this little town, but a good water supply is much needed.

Ratnapura.—The sanitary condition is fairly satisfactory, as there is a good water supply and drainage is sufficient.

Rakwana.—The drainage of the town is said to be better attended to.

Kegalla.—The sanitary condition is reported to be fairly satisfactory within the Local Board limits.

Karawanella.—The sanitary condition is practically the same as in last year.

Vaccination.

There were 11,828 subjects vaccinated and 977 re-vaccinated in the North-Western Province, with the following results: successful 9,237, unsuccessful 945, unknown 2,625; and there were 15,143 subjects vaccinated and 1,748 re-vaccinated in the Province of Sabaragamuwa, with the following results: successful 13,026, unsuccessful 1,407, absent 2,458.

The percentage of successful vaccinations were 92.27 for primary vaccinations and 68.46 for re-vaccinations in the North-Western Province, and 80.40 for primary and 48.68 for re-vaccinations in the Province of Sabaragamuwa.

Jails.

There are three jails in the North-Western Province, at Kurunegala, Puttalam, and Chilaw, and two in the Province of Sabaragamuwa, at Ratnapura and Kegalla. Only short-sentenced prisoners and those on remand, with road defaulters, have been confined in these jails.

Other Observations.

A new dispensary was opened at Dodangaslanda in March, the building being provided by the Government Agent from funds collected from contributions from villagers, according to the scheme devised by the late Government Agent Mr. Fisher. Another dispensary was opened at Wariyapola in December. The permanent building not being ready, a temporary building was provided. Branch dispensaries at Rambodagalla, Hettipola, and Katupota will soon be ready for occupation.

A new dispensary building has been substituted for the old temporary one rented at Embilipitiya. A new permanent ward has been built at Karawanella, and a permanent block of wards is now in course of construction at Kegalla. Two new buildings have been added to the Balangoda hospital, one to be used as quarters for the nurses and the other as dispenser's quarters.

The bathrooms and latrines at Dandugamuwa have been provided with cement floors, and the ground immediately surrounding the well was also paved and cemented. At the Nikaweratiya hospital additional drains have been built, and the system of drainage is now complete. A new pump has been fixed to one of the wells at the Kurunegala hospital compound. The old storeroom at the Godakawela hospital has been converted to a ward.

I have visited all the hospitals and dispensaries in both the North-Western and Sabaragamuwa Provinces twice during the year, with the exception of the branch dispensaries at Ma Eliya and Nikawewa, which I visited only once, but the records of which, being kept at Batalagoda, I inspected twice.

(7) PROVINCE OF UVA.

This Province is under the supervision of Colonial Surgeon F. Oorloff, M.B., C.M., whose report is subjoined :—

Hospitals	...	{ Civil ...	...	...	...	1
		{ District	...	...	...	2
		{ Field or Parangi	...	...	...	3
Dispensaries	...	{ Civil ...	...	...	...	9
		{ District	...	...	...	9
		{ Estate...	...	...	...	12
Itinerating stations	...	...	...	...	...	10
Estimated population	{ 1901 ...	...	...	...	186,528	
	{ 1900 ...	...	...	...	188,964	
Births	{ 1901 ...	...	...	...	7,433	
	{ 1900 ...	...	...	...	7,322	
Deaths	{ 1901 ...	...	...	...	7,574	
	{ 1900 ...	...	...	...	6,718	
Birth-rate per 1,000	{ 1901 ...	...	...	...	39.8	
	{ 1900 ...	...	...	...	38.7	
Death-rate per 1,000	{ 1901 ...	...	...	...	40.6	
	{ 1900 ...	...	...	...	35.5	

Prevalence of Sickness in the different Seasons of the Year.

The diseases most prevalent were malarial fever, dysentery, diarrhœa, parangi, rheumatism, and respiratory affections.

Malarial Fever.—The largest number of cases, viz., 2,071, were treated at Badulla in the hospital and at the outdoor dispensary, Medagama comes next with 1,644 cases, Koslanda comes third with 1,477 cases, Passara comes fourth with 1,451 cases, Muppana comes fifth with 1,331 cases, and Bibile comes sixth with 1,220 cases. Pingarawa had the smallest number, viz., 298. In no place did it assume an epidemic character, and the cases that occurred readily yielded to treatment. It was most prevalent during the north-east monsoon. During my half-yearly circuits in the Province I have invariably explained to the headmen and villagers the great necessity for preventing the formation of stagnant pools of water, especially in the vicinity of their dwellings.

Diarrhœa and Dysentery.—These diseases prevailed to a somewhat great extent during the last quarter of the year, and were chiefly attributable to unwholesome food and water. The villages in which they occurred were promptly visited by the apothecaries of the respective districts. The distribution of medicines and the adoption of sanitary measures resulted in rapid recoveries and very few deaths.

Parangi.—This disease exists to a great extent in Medagama, Alutnuwara, Badullewella, Buttala, Muppana, Tanamalwila, and Wedikumbura. Its prevalence is no doubt due to the want of wholesome food and water and segregation.

Rheumatism and Respiratory Diseases.—These diseases prevailed mostly during the first and last quarters of the year.

Relative Mortality in the different Seasons.

The following table gives the number of deaths registered during the year :—

	No. of Deaths registered.		No. of Deaths registered.
January ...	635	August ..	525
February ...	507	September ...	631
March ...	581	October ...	722
April ...	744	November ...	885
May ...	480	December ...	838
June ...	468		
July ...	558	Total ...	7,574

The mortality, as will be seen from the above figures, was highest during the last quarter. The following diseases were the chief causes of the deaths registered :—Diarrhœa, dysentery, infantile convulsions, pneumonia, malarial fevers, tubercle of lungs, and bronchitis.

Meteorological Conditions and their effect on the Public Health.

The rainfall was heaviest during the first and last quarters of the year, i.e., during the prevalence of the north-east monsoon. The dry season corresponds with the south-west monsoon, which lasts from April to September. During the wet months the diseases which chiefly prevailed were malarial fevers and respiratory affections, and during the dry season parangi, sore eyes, skin affections, and chickenpox.

Particular Diseases that have recurred during the Year.

Cholera.—This disease prevailed to a certain extent in Alutnuwara, Pangaragamana, Migahawela, and Welimada. There were 46 cases, with 27 deaths.

Smallpox.—There were only 7 sporadic cases of this disease, viz., 3 in Bandarawela, 1 in Haldummulla, and 6 in Welimada, with 2 deaths in the last-mentioned place.

Chickenpox.—123 cases were reported from seven stations.

Measles.—A hundred cases were reported from thirteen villages.

General Sanitary Condition of the Province.

Badulla.—The water supply is good and sufficient, the water being conveyed to the town by pipes. The drainage continues to be defective. The town was not overcrowded during the year.

Bandarawela.—The scheme for improving the water supply, referred to in my last report, is, I understand, still under consideration. The drainage is defective. There was no overcrowding of the bazaar.

Haputale.—The water supply is good and sufficient. The drainage is very bad. There was no overcrowding.

Haldummulla.—The water supply is pretty good. The drainage is defective. There was no overcrowding. Public latrine accommodation is wanting.

Koslanda.—The water supply is pretty good. The drainage is bad. There was no overcrowding.

Passara.—The water supply is pretty good. The drainage is bad. There was no overcrowding.

Lunugala.—The water supply is liable to pollution. This could be remedied by the extension of the water-service from the resthouse to the bazaar street. The drainage is very bad. There was no overcrowding.

Welimada.—The chief source of the water for drinking purposes is a stream which flows into the resthouse premises. The drainage is bad. There was no overcrowding.

Vaccination.

Six vaccinators (four district and two estate) were employed during the year. In addition to this, the medical officers and apothecaries carried on vaccination at the outdoor dispensaries. The work of the vaccinators was regularly inspected by the Inspector of Vaccination, and the vaccination at the Outdoor Dispensary, Badulla, was regularly inspected by the Colonial Surgeon.

The following table shows the number of persons vaccinated and re-vaccinated, with results, during 1900 and 1901 :—

Primary Vaccination :—		1900.	1901.
Number vaccinated	...	6,835	7,011
Number successful...	...	6,036	6,218
Number unsuccessful	...	414	323
Number unknown ...	...	385	468
Percentage of successful to total inspected	...	93.68	95.04
Re-vaccination :—			
Number vaccinated	...	1,400	1,014
Number successful...	...	891	471
Number unsuccessful	...	266	291
Number unknown ...	...	243	252
Percentage of successful to total inspected	...	77.00	61.81

Prosecutions under the Vaccination Ordinance.—There were 128 prosecutions.

(8) REPORT of the Acting Surgeon in charge of the General Hospital, Colombo, Dr. H. M. Fernando, M.D., B.Sc., Lond., Fellow of University College, London.

(A) GENERAL HOSPITAL.

(1) Administration.

DURING the year 1901, the number of patients treated in the hospital amounted to 15,614. For purposes of comparison I append the following table :—

		Total Treated.			Total Treated.
1895	...	7,806	1899	...	9,399
1896	...	7,876	1900	...	14,221
1897	...	9,063	1901	...	15,614
1898	...	9,102			

Although the increase in 1900 was phenomenal and unprecedented, there has been a steady increase even last year. The number of patients receiving treatment in the hospital has doubled within the last five years. The daily average amounted last year to 506.31, so that lack of accommodation was actually felt all through the year.

The erection of the temporary wards, which were urgently required at the end of 1900, was not undertaken till the middle of the year. These wards are only approaching completion now. I feel confident that when they are completed they will relieve the overcrowding which occurs at present. The wards are cool, airy, and well ventilated, and will accommodate ninety patients.

To further relieve the overcrowding, an arrangement was made by Government with "The Victoria Home for Incurables" to accommodate about 25 incurable cases from the General Hospital in the Home, Government undertaking to pay for their maintenance. This arrangement gave this hospital great relief in setting free a number of beds for the relief of acute diseases, which had been utilized for incurable cases. Even at present several beds are permanently occupied by blind and others who are not received by the Home for Incurables.

The Professional Staff.—The changes consequent on the translation of Dr. T. F. Garvin as Chief Medical Officer, Boer Camp, Diyatalawa, continued throughout the year. Dr. Joseph de Silva, M.B., C.M. (Aberdeen), was appointed Third Physician in March.

Nursing.—The work of the Rev. Mother Superior and her staff increases with the increase of patients. I regret to state that two of the Sisters utterly broke down in health during the year. With the opening of the new wards I hope that a further increase in the number of Sisters will be permitted. The accommodation provided for the Sisters is insufficient, and an extension to their quarters is urgently called for.

Improvements.—The administration block for the General Hospital, which had been asked for for several years, was sanctioned last year, but its erection has not yet been started. The temporary wards already referred to will be completed and fit for occupation by April next.

Expenditure.—The vote for the diets was Rs. 40,000; but under this head the expenditure amounted to Rs. 53,350.40, the excess of expenditure over the vote amounting to Rs. 13,350.40. This was entirely due to the large increase in the number of patients. The total cost per head per day for food and stimulants was 30.57 cents, as against 30.63 cents in 1900 and 32.57 in 1899.

(2) *Professional.*

The total number of cases treated during the year reached the enormous total of 15,614 for the 370 beds available in the whole hospital.

Of the cases treated, 1,219 died, the mortality reaching 7.80 per cent., being exactly the same as the rate of mortality in the preceding year. Amongst Malubars the death-rate amounted to 12.77, and amongst cases sent in by the police in a more or less moribund condition the rate reached 36.69 per cent.

No special epidemic of a far-reaching character was prevalent, but dysentery, phthisis, diarrhoea, pneumonia, and enteric fever are still on the increase. Of enteric fever, 198 cases were admitted during the year for treatment, and these were drawn from all parts of the town.

From the above list of diseases which are on the increase, it is clear that the public health of Colombo is far from satisfactory. But no great improvement to the public health can be expected until the improvement of conservancy and of drainage, a more liberal policy in the distribution of water to the poorer classes, and a check to overcrowding in the slums, are undertaken by the Municipality. With the adoption of the Mansergh scheme of drainage and sewerage, which has already been sanctioned, and the re-duplication of the water main, a great improvement to the public health of the city may be confidently expected.

(B) *PAYING WARDS.*

The work of these wards keep steadily increasing. In the year under review the number treated reached the large total of 639 patients, as against 616 in 1900 and 412 in 1899. These cases were distributed as follows:—

				Medical.		Surgical.
Seamen's Ward	...	...	...	256	...	170
Planters' and Anthonisz Wards	...	...	...	83	...	104
Passengers' Wards	...	...	...	19	...	4
Cargill's Ward	...	...	...	3	...	—
				361		278
				639		

Of the numbers treated, the deaths were 48, equal to a mortality of 7.51 per cent. Of the patients treated, 76 were cases of enteric fever, the largest record of enteric cases for a year. Amongst these cases ten deaths occurred, a satisfactory mortality, considering that several of the deaths, especially in the Seamen's Ward, occurred amongst patients who had been exposed to the privations and hardships incidental to the military operations in China.

Of the prisoners of war sent to this Colony, 58 received treatment in the paying wards during the year, 32 being medical cases and 26 surgical. Four of these prisoners died.

Revenue and Expenditure.—The total income from these wards amounted to Rs. 33,608.17. The expenditure under the head of Diets, Lighting, Attendants, and Equipment amounted to Rs. 29,298.17, leaving a balance of Rs. 4,310. Deducting Rs. 2,000, the wages of the nursing staff, there remains a balance of Rs. 2,310 only, which is far from adequate to meet the expenditure incurred by Government for the payment of the medical staff, cost of medicines and surgical appliances, and the cost of upkeep and repairs to buildings. It is clear that the Government is maintaining these wards for the benefit of the public and planters at a considerable loss.

Report of Mr. H. G. Thomasz, F.R.C.S. (Edin.), Second Surgeon, Civil Hospital, Colombo.

I HAVE been in solo charge of the surgical work of the Civil Hospital, Colombo, during the year. This work has been most congenial to me, and I have been able to show good work and creditable results. I occupied a similar position when Dr. Rockwood retired, from 1st April, 1898, to May, 1899. I have been ably assisted by the staff, which consisted of a qualified House Surgeon and a senior medical student.

It is absolutely necessary, for the surgical supervision of 200 or more pauper patients, that another qualified House Surgeon should be appointed. The surgical demands in this institution are daily increasing, both in the paying and pauper wards, and the casualty work is very heavy and too great for one House Surgeon to cope with. He has occasionally to attend court as well as to give evidence in assault cases, when the surgical and casualty patients are immediately under unqualified charge. It will be seen from my diary that I devote a good deal of my time to my hospital duties, and that to keep abreast with the work I devote three special days for operation work, reserving the other days for close ward and clinical work. On operating days the work falls specially heavy on the staff and myself without another responsible assistant, who can be relied upon for the routine work in the pauper and paying wards, and specially the casualty department. The Principal Civil Medical Officer has fully seen the necessity for such an appointment, and has, I believe, brought the weight of his authority to bear in securing a promise of another qualified officer for the surgical staff.

Accommodation inadequate in ulcer and syphilis wards. This is being remedied by the erection of "temporary wards." No steps have been taken as yet for the erection of isolated "strong rooms" for violent and noisy cases, or for infectious and contagious cases, like erysipelas, tetanus, &c.

Equipment.—Every effort has been made to remedy all deficiencies in this direction, and complaints have been very few, as there has been an intelligent appreciation of the want of this institution and its daily increasing demands on an Equipment Vote. I have always been able to secure all I wanted for the wards to ensure surgical success, and which would tend to make the paupers more comfortable and happy under depressing surroundings.

Nursing.—Fair; more supervision required. Night nursing indifferent.

Attendants.—More supervision required. They are ill-paid in pauper wards.

Medicines, Materials, and Surgical Dressing have been well supplied, and every request for new drugs or instruments has been promptly attended to, or effort has been made to secure it by special vote.

Dressers.—Greater attention is paid to ward work, but the number of students attached to each ward is small, and a good deal of rough dressing has to be done by the ward attendant; *e.g.*, the ulcer ward contains at times 50 to 60 patients, and the syphilis ward between 35 to 50; only four and five students are attached to these wards for work. They are unable to cope with this, and the attendants have to help them.

Paying Wards.—The work in this section of the hospital is increasing daily, owing to the popularity of the institution and the development of the Port of Colombo.

I annex a statement showing the increase of work in the surgical section :—

Year.	Number of Cases treated.				Remarks.
1899	164	...	} All important cases requiring constant attention.
1900	225	...	
1901	278	...	

Remarks on Professional Work.—The total number of operations for the year was 712. There were 15 deaths, giving a mortality of 2·2 per cent. Of the 28 amputations, 2 were of the thigh, 2 leg, 1 tarsometatarsal, 1 upper arm, 3 forearm, 6 metacarpo-phalangeal, and 13 digits.

Fifty-four operations for inguinal hernia, 22 in cases of strangulation (herniotomy), and 32 for radical cure of reducible scrotal hernia. Bassini's or Bank's methods were always adopted by me, but Dr. Chalmers in three cases performed Ball's operation. One death occurred after herniotomy, due to gangrene of the bowels, as shown by the post-mortem. Another case of strangulated hernia was brought in rather late. The patient was chloroformed, but the bowels returned to the abdominal cavity before taxis was applied. The patient died six hours later, death being due to gangrene of the bowels.

Nine cases of hepatic abscesses, with 2 deaths, one three days after admission, due to the abscess having burst into the alimentary canal, as shown by the escape of a round worm from the abscess cavity when opened, and the other due to multiple abscess.

Five cases of ovariectomy were successfully performed.

Thirty-five cases of hydrocele, in 10 of which extroversion of the sac, and the rest by injections into the sac of a drachm or two of perchloride of mercury solution 1 in 500.

Seventeen cases of hæmorrhoids were treated by ligature and excision, with good results.

Three cases of stone in the bladder were operated upon, 2 by lithotomy and 1 by supra-pubic lithotomy; all recovered.

Twenty malignant new growths and 33 non-malignant new growths were removed by operation.

Of the 4 cases of laparotomy, 2 recovered, 1, a case of volvulus, involving the large intestine with a very long mesocolon. In this case the bowel was drained with rubber tubing fixed into the large intestine by a purse string suture, and the bowel itself was fixed to the lower end of the wound. The other case was one of suppurative peritonitis, in which the abdominal cavity was washed and drained. Of the remaining 2, 1 a case of tubercular peritonitis, the patient succumbed a few hours after operation; and the other was a case of intussusception of long duration, where operation was undertaken seven days after the twisting of the gut, and the patient died four days after admission into hospital.

Two cases of perineorrhaphy, 1 for imperforate hymen, 2 amputations of the cervix, and 16 cases of curetting of uterus, also 2 vesico-vaginal fistulæ were treated, all with good results.

Of the 3 cases of tracheotomy, 2 were for diphtheria. Both died from cardiac failure, due to diphtheretic toxæmia.

Two cases of ligature of arteries. One was a successful operation done for popliteal aneurysm.

Of the 31 cases where trephining was done, 4 ended in death. They were serious cases, extensive fracture implicating the base of the skull and laceration of brain matter in some, as shown by post-mortem examination.

Nine cases of empyæma treated by thoracotomy, with one death, due to long duration before admission of the patient into hospital.

Two successful cases of tenotomy were performed.

Seventeen castrations for hæmatocele and suppurative phlebitis of the cord.

Nineteen amputations of the penis were done for malignant disease.

Elephantiasis scroti in an advanced state were successfully treated in 3 cases.

One case of harelip, with good results.

Eleven excisions of eyeball, mostly for panophthalmitis.

Excisions of carbuncles were performed in 8 cases.

Ten operations for fistula in ano were performed. There were 17 cases of catheterization under chloroform.

One case of transverse fracture of patella, with sub-cutaneous ligature of fragments.

A case of hydatid of liver.

One case of varicocele was treated successfully by Benett's operation.

A case of sub-diaphragmatic abscess treated was lost, due to suppurative peritonitis.

Extraction of bullets and other foreign bodies under chloroform numbered six.

A death due to pyæmia occurred in the case of a young subject operated on for a long-standing iliac abscess.

348 other operations were done under chloroform, such as excision of glands of neck and groin, circumcision, opening abscesses and sinusses, excision of bone, &c.

Besides myself, operations were performed by Drs. Chalmers and Sinnatambay.

Name of Surgeon.				No. of Cases.		Deaths.
Dr. Chalmers	...	...	...	20	...	—
Dr. Sinnatambay	...	...	...	54	...	4 ^o
Dr. Thomasz	...	...	...	638	...	12

* All serious cases (*vide* annexed statement of deaths).

Statement of Deaths.

No. in Operation Register.	Name of Surgeon.	Cause of Death.	Nature of Operation.
55	Dr. Sinnatamby	Suppurative peritonitis	Penetrating wound of abdomen.
87	Do.	do.	Sub-diaphragmatic abscess.
103	Do.	Suppurative meningitis	Fracture of skull extending to base along temporal bones. Six days.
176	Dr. Thomasz	Toxæmia	Tracheotomy. One day.
202	Do.	Gangrene of bowels	Strangulated hernia. Twelve hours after. One day.
328	Do.	Intussusception	Seven days' standing. Five years old. Four days.
339	Do.	Cerebral pressure, epidural and sub-arachnoid hæmorrhage	Trephining for a large depressed fracture.
370	Do.	Fracture of base of skull with laceration of brain substance	Trephining.
387	Do.	Exhaustion thirty days after	Thoracotomy for empyæma of three months' standing.
488	Do.	Suppurative peritonitis	Hepatic abscess ; a round worm escaped from wound. Long standing. Three days.
499	Do.	Pyæmia	Iliac abscess. Twenty-one days.
520	Do.	Gangrene of bowels	Reduction by taxis.
583	Do.	Tubercular peritonitis	Tubercular peritonitis.
624	Do.	Toxæmia	Tracheotomy. Diphtheria.
709	Dr. Sinnatamby	Fracture of base of skull and hæmorrhage	Trephining for depressed fracture of skull. Two hours.
684	Dr. Thomasz	Multiple abscess	Hepatic abscess.

List of Operations.

Total, 712 ; Deaths, 16.

Nature of Operation.	No. of Operations.	No. of Deaths.
Amputations	28	—
Hernia (inguinal)	53	1
Reduction by taxis under chloroform	1	1
Hepatic abscess	9	2
Ovariectomy	5	—
Hæmorrhoids	17	—
Hydrocele	35	—
Elephantiasis scroti	3	—
Hælip	1	—
Excision of malignant new growth	20	—
Excision of non-malignant new growth	33	—
Stone in bladder	3	—
Castration	17	—
Amputations of penis	19	—
Excision of eyeball	11	—
Hydatid of liver	1	—
Reduction of dislocation	5	—
Varicocele	1	—
Circumcision	68	—
Excision of bone	30	—
Tenotomy...	2	—
Empyæma	9	1
Trephining	31	4
Ligature of arteries	2	—
Perineorrhaphy	2	—
Imperforate hymen	1	—
Amputation of cervix	2	—
Curetting of womb.	16	—
Tracheotomy	3	2
Laparotomy	4	2
Penetrating wound of abdomen	2	1
Sub-diaphragmatic abscess	1	1
Extraction of foreign body	6	—
Excision of carbuncle	8	—
Fistula in ano	10	—
Vesico-vaginal fistula	2	—
Post-pharyngeal adenoids...	2	—
Catheterization	17	—
Canterization	13	—
Excision of ranula	3	—
Slitting up of sinus	25	—
Fractured patella	1	—
Abscesses...	66	1
Excision of glands	124	—
Total	712	16

List of Eye Operations performed at the General Hospital, Colombo, during the Year 1901.

No. of Operations.	Nature of Operation.	Operator.	
		Dr. Perry.	Dr. W. H. de Silva.
43 ...	Cataract ...	16	27
7 ...	Corneal ulcer (cauterization) ...	—	7
1 ...	Enucleation of eye ...	1	—
5 ...	Iridectomy for glaucoma ...	3	2
23 ...	Iridectomy for leucoma ...	7	16
1 ...	Iridectomy, preliminary, for cataract ...	—	1
2 ...	Lachrymal abscess ...	—	2
1 ...	Meibomian cyst ...	—	1
1 ...	Mule's operation ...	1	—
1 ...	Removal of hypertrophied gland ...	—	1
10 ...	Needling ...	3	7
8 ...	Pterygium ...	4	4
1 ...	Symblepharon (incision) ...	1	—
1 ...	Trachoma (scraping) ...	1	—
2 ...	Tattooing of cornea ...	—	2
107		37	70

Report of Dr. M. Sinnatamby, M.D. Brux., F.R.C.S., Second Physician.

DURING the year I worked as Second Physician, except but for a brief period, when Dr. Thomasz's illness necessitated my attending to his surgical duties.

I had, as in previous years, the medical charge of the male medical ward No. 1, the two upper male diarrhœa wards, and the female medical ward, giving in all an accommodation for 74 patients. The total number of cases admitted into my wards was 3,330, as against 3,185 in 1900, and their distribution in the wards was as follows:—

The Male Medical Ward No. 1 ...	...	553
The two Upper Male Diarrhœa Wards ...	...	1,580
Female Medical Ward ...	...	1,197
Total ...	...	3,330

Overcrowding continued unrelieved during the year, and the largest number of admissions into my wards was during the month of January, when the accommodation was taxed to the utmost limit. Completion of the temporary wards promises to relieve this chronic congested state of the wards to a certain extent, but the question of overcrowding cannot be considered as settled until another hospital is constructed in the northern part of the city to meet the wants of its growing population.

Anchylostomiasis and enteric fever are on the increase. I have all along held that water was not the main source of infection in cases of anchylostomiasis as is generally supposed, and the preventive measures should be directed towards ensuring personal cleanliness and a better system of conservancy than at present obtains. The life-history of the parasite outside its human host precludes a water-borne theory.

Enteric fever is another disease which requires special attention of the sanitary authorities. The source of infection is perhaps through the medium of food and flies. Notification, disinfection of the stools properly conducted, and the introduction of Mansergh's system of drainage may conduce to the improvement of the public health of Colombo. The present pernicious system of disposal of the sewerage, I am convinced, tends not a little to the prevalence of enteric fever.

Nursing, especially night nursing, leaves much to be desired. A specially trained nurse for attendance on gynecological cases is a desideratum.

Attendants.—The standard of efficiency of the staff of the attendants requires to be raised. This can effectually be done by raising the wages, so that decent men may be induced to apply.

The working of laundry in connection with this hospital, besides effecting a saving in the long run, will remedy the present unsatisfactory state of the washing (*vide* my report for 1900).

Before concluding, I must again appeal for a qualified House Physician.

Report of Mr. Joseph de Silva, M.B., D.P.H., Acting Third Physician.

I ASSUMED duties as Acting Third Physician of the General Hospital, Colombo, on the 4th April, 1901, the wards in my charge being the lower male diarrhœa wards and the female diarrhœa ward. The number of patients admitted into them for the whole year (1901) is into lower male diarrhœa wards 1,730, into female diarrhœa ward 969. Of the former 381 died, and of the latter there were 176 deaths, the rest being discharged cured or relieved.

The mortality is indeed high. It is not, however, of a greater percentage than of previous years, yet one would much desire to see it less, though perhaps it is unavoidable. This is to be attributed mainly to the class of patients admitted into these wards, who are generally the poorest of the poor. Their very low social condition and their complete want of intelligence and anything like cleanliness are causes which all contribute to the aggravation of all maladies that may happen to attack them. Not unfrequently patients come in or are often brought into the wards when no medical relief could be of any avail, and many are the cases that end in death a few hours, and in some, though rare, cases even a few minutes, after admission. Further, diarrhœa, especially chronic, is the disease that carries off the largest number, and it is the sad despair of the officer attached to these wards.

Accommodation.—The wards are very badly overcrowded. For various reasons cases that are incurable and are unfit for the wards of a General Hospital have to be kept in these wards for lengthy periods. The remedy for the ever-increasing congestion of wards that are already overcrowded may be looked forward to in the early opening of the new wards.

Nursing is fair, but the Sister in charge of the lower male diarrhoea ward has to work hard to fulfil her duties in a satisfactory manner. She is further handicapped by the poor help she receives in the way of attendance, which is decidedly bad. The wages offered to the attendants of these wards are so inadequate that none but an indifferent class of men seek employment in such work. The services required of the attendants of these wards are not at all pleasant, and an increase in the salaries offered may tend to an improvement.

In concluding, I must lay great stress on the fact that the want of an assistant is very often badly felt. The Third Physician has to administer chloroform in the operating theatre three days in the week, and on such days the necessary time cannot possibly be devoted to ward work. There are on an average between 80 and 100 patients in these wards, and some time has to be devoted to each of them individually, no matter what the disease may be. Relief of a part of this task is an essential necessity, and could be obtained in the appointment of an assistant—a senior medical student, if not a fully qualified person. Such an appointment would, while relieving the officer in charge of considerable anxiety, be also a distinct advantage to the patients.

Report of Dr. W. H. de Silva, M.B., C.M., Ophthalmic Surgeon.

Staff.—The staff of the infirmary remains the same. During the year I was away on seven months' leave in Europe, during which period the ophthalmic work was attended to by the Principal Civil Medical Officer and Dr. H. Joseph, L.M.S.

Number of Outdoor Patients.—4,336 cases have been treated, as against 3,676 in 1900.

Diseases treated during the year include—

Abscess of lid ...	5	Hypermetropia ...	30
Do. lachrymal ...	8	Do. compound ...	1
Do. of frontal sinus ...	1	Hernia of iris ...	2
Albinism ...	1	Inflammation of caruncle ...	1
Astigmatism ...	3	Injury to cornea ...	4
Do. myopic ...	8	Injury to sclerotic ...	1
Do. compound ...	1	Iritis ...	23
Do. hypermetropic ...	2	Do. syphilitic ...	3
Amblyopia ...	1	Do. rheumatic ...	7
Blepharitis ...	33	Kerato malacia ...	6
Do. ulcerosa ...	9	Keratitis ...	10
Do. squamosa ...	2	Do. interstitial ...	6
Burn of eye ...	2	Do. ulcerative ...	2
Cataract ...	123	Do. punctate ...	3
Do. soft ...	2	Do. phlyctenular ...	9
Do. congenital ...	3	Leucoma ...	40
Do. traumatic ...	4	Leucoma, adherent ...	9
Conical cornea ...	1	Lachrymal obstruction ...	21
Contusion ...	9	Myopia ...	21
Congenital coloboma of both eyes	1	Nyctalopia ...	1
Conjunctivitis ...	313	Neuritis, optic ...	1
Do. catarrhal ...	3	Neuralgia and headache ...	12
Do. granular ...	5	Ophthalmia, neonatorum ...	3
Do. phlyctenular ...	49	Do. acuto catarrhal ...	13
Do. follicular ...	8	Do. gonorrheal ...	1
Choroiditis ...	2	Do. sympathetic ...	7
Do. central ...	2	Do. strumous ...	1
Do. commencing ...	1	Occlusion of pupil ...	3
Corneal ulcer ...	52	Opacities of cornea ...	2
Ciliary staphyloma ...	2	Do. vitreous ...	1
Do. spasm ...	2	Optic atrophy ...	5
Cyst, Meibomian ...	19	Presbyopia ...	42
Cyst of lid ...	2	Pinguicula ...	5
Distichiasis ...	2	Panophthalmitis ...	10
Dislocation of lens ...	1	Pterygium ...	19
Entropion ...	2	Polypus of conjunctiva ...	1
Eczema of lids ...	5	Pannus ...	7
Facial paralysis ...	2	Retino choroiditis ...	1
Foreign body in cornea ...	35	Retinitis pigmentosa, central ...	1
Foreign body in eye ...	8	Scleritis, rheumatic ...	1
Glaucoma ...	4	Scleritis ...	1
Heterochromia ...	1	Synechia, post and ant. ...	6
Hæmorrhage, retinal ...	1	Staphyloma ...	15
Hæmorrhage, sub-conjunctival ...	4	Trachoma ...	21
Hypertrophy of lachrymal gland ...	1	Wounds of eye ...	16
Hordeolum ...	2	Zanthena conjunctiva ...	1

Collections for the year in 1901 Rs. 126·83, in 1900 Rs. 98·40. These were of a purely voluntary nature.

Number treated in the General Hospital 327.

Operations.—152 operations were performed during the year. These include the following :—

Cataract ..	43	Enucleation of eyeball ...	2
Corneal ulcer (cauterization) ...	12	Removal of foreign bodies ...	9
Removal of cysts (Meibomian) ...	12	Removal of lachrymal gland ...	1
Iridectomy for glaucoma ...	5	Mule's operation ...	1
Iridectomy for leucoma ...	22	Needling ...	10
Iridectomy for occlusion of pupil ...	2	Pterygium ...	10
Incision of symblepharon ...	1	Trachoma ...	1
Lachrymal obstruction ...	15	Tattooing ...	2
Lachrymal abscess ...	3		

Improvements suggested. — Owing to the possibility of the Eye Hospital being realized, I would make no suggestions for improvements this year.

(9) REPORT of the Medical Superintendent, Lunatic Asylum, Colombo, Mr. J. B. Spence, M.A., M.B.

I HAVE the honour to submit the annual report of this asylum for the year 1901.

At the beginning of the year the number of patients remaining on the asylum register was 494 (310 males and 184 females). During 1901 78 males and 46 females, total 124, were admitted. The total number treated was thus 618 (males 388 and females 230).

Eighty-three patients (50 males and 33 females) were discharged, and 72 patients (36 males and 36 females) died during the year.

The number remaining on the register at the end of the year was therefore 463 (males 302 and females 161), *i.e.*, a decrease of 31 patients (8 males and 23 females). This rather more than counter-balances the increase of the previous year, but the relief afforded by it is more apparent than real, since it affects chiefly the female division, in which additional space is much less urgently required than in the male division, and also for other reasons to be alluded to later.

The average daily number resident (in the asylum alone) in 1901 was in the case of males 305.39 (an increase of about 10 from the previous year), in the case of females 176.06 (a decrease of about 10); taking both together the number was 481.45, as against 481.03 in 1900. The demand on the available accommodation has thus been greater than before, at least in the male division, which is least able to afford it, in spite of the decrease in the numbers remaining at the end of the year.

For the house of observation the figures are as follows:—At the end of 1900 three patients, all males, remained on the register. During 1901 160 cases (114 males and 46 females) were admitted. The total number of cases under treatment was therefore 163 (117 males and 46 females). Of these, 106 cases (77 males and 29 females) were discharged, and 47 cases (33 males and 14 females) were transferred to the asylum. Two male patients died in the course of the year. The number remaining in the house of observation at the end of the year was 8 (5 males and 3 females). The daily average number resident in it was in the case of males 3.84, in that of females 1.59, and in both together 5.43.

Although technically distinct, the asylum and house of observation have to be taken together in framing an estimate of the adequacy of the accommodation provided, and that must be judged in relation to the maximum rather than to the average number.

The greatest number of males resident in the whole institution on any one day was 318, as compared with 313 in the previous year; of females 191, as compared with 197 in 1900. The greatest total number was 502, *i.e.*, two less than the maximum of 1900. The minimum numbers for the year were males 299, females 163, total 468.

The daily average numbers for the whole institution were males 309.23, females 177.66, total 486.89. This shows an increase of 11.20 in the daily average number of males requiring accommodation, a decrease of 9.82 in that of females, and an increase of 1.38 in the total number as compared with last year.

Admissions (Asylum).—The number admitted (124), though not quite so high as in the two preceding years, is considerably above the average. Nine of the cases (6 men and 3 women) had been under treatment here before, *i.e.*, about 7 per cent. of the total number. Five of the admissions were prisoners of war from South Africa. Two cases of general paralysis of the insane were admitted, 1 to the asylum and 1 to the house of observation; and 2 others, admitted late in 1900, in whom the diagnosis was not at first quite clear, were transferred to this category. As the years progress I become more and more convinced that general paralysis not only exists among Asiatics, contrary to the opinion of some authorities, but that it is not very rare; its non-recognition in some cases probably depends on its being less obvious and definite in its clinical features here than in Europe. This does not apply to all the cases, however; a certain proportion are typical and unmistakable.

The form of mental affection in those admitted was mania in 59 cases (39 males and 20 females), melancholia in 43 cases (20 males and 23 females), epileptic insanity in 9 cases (7 males and 2 females). There was 1 case each of stupor and dementia, while in no fewer than 10 cases (9 males and 1 female) I was unable to detect insanity. In some of these a transient attack may have occurred, and recovery have followed very speedily, but in others I think a mistake had been made.

Discharges.—The number discharged (83) was, with one exception, the highest since the opening of the asylum; in females it was the highest. Calculated on the admission rate, the percentage of recoveries was 41.93 (males 34.61, females 54.34); the average for the previous thirteen years was 47.67 (males 48.39, females 47.40). The number discharged as “recovered” was 52 (27 males and 25 females), as “relieved” 14 (9 males and 5 females), and as “not improved” 17 (14 males and 3 females). The last number is inordinately magnified by the cases classed as “not insane,” of whom there were 14 (12 men and 2 women).

Deaths.—The rate of mortality, calculated on the average number of patients on the roll, was 14.95 per cent. (males 11.78 per cent., females 20.44 per cent.). Calculated on the total number treated, the rate was 11.65 per cent. (males 9.25 per cent., females 15.72 per cent.). This is an unusually high ratio, the averages for the thirteen preceding years being 8.54 per cent. (males 9.36 per cent., females 7.37 per cent.) and 6.99 per cent. (males 7.45 per cent., females 6.11 per cent.), respectively. The average for males and females together has been exceeded on one occasion previously (1893), but the average for females alone is nearly double that of any previous year. This is chiefly accounted for by the very unusual proportion of cases of cerebral degeneration or some other incurable disease. In 14 cases (9 males and 5 females) death resulted from disease of the brain alone, and in 16 more (10 males and 6 females) such disease was the chief factor, though combined with other maladies, while it was contributory in 12 others (5 males and 7 females). Eight deaths resulted from phthisis alone, and 5 others from that in combination with other disease. Heart disease was the chief cause of death in 3 cases, and a considerable factor in at least 4 more. Liver disease in 4 chiefly, and in several others partly. Dysentery alone in 3 cases, and along with old age or brain disease in 5 more. Other forms of intestinal affection constituted the chief cause in 5 cases, while old age was the sole cause in 4 cases (1 male and 3 females), and an important element in several others. There were two deaths from pneumonia, and one from ulceration of the œsophagus, caused by the impaction of a jagged piece of fish bone, so situated that, though repeated examinations were made, it could not be felt. I regret to have also to record the occurrence of the first case of suicide since I took charge here. The patient, a very tall and powerful European, was admitted to the house of observation suffering from suicidal melancholia of the most acute kind, his thoughts being concentrated on the idea of suicide, and on methods whereby it might be accomplished. At times his excitement

became so great that five attendants had much difficulty in restraining him, and in view of this and of the other circumstances of the case it was deemed preferable to seclude him in a padded room during the night, an attendant being placed on duty at the door of the room with instructions to summon assistance should he hear anything to suggest the necessity for such action, while arrangements were made for the periodic visitation of the patient by three attendants. During the greater part of the night these measures were successful, but towards morning the patient, having perceived a weak point in the construction of the room, which had previously escaped observation, and having accomplished an athletic feat, which would have been very difficult, if not impossible, for any one of less stature and inferior muscular power, succeeded in hanging himself. As he had been walking about and beating the pads and making much noise before, the noise which must have resulted from his efforts to attach the noose were unperceived, or at least were not distinguished from previous noises; while the quietude that followed, and that was observed, was at first supposed to be due to a quiescent interval, of which there had been several. When its prolongation led to the door being opened, the patient was perceived to be dead, and medical aid, which was summoned at once, was quite useless.

The high rate of mortality has been the subject of very careful consideration, and though it was largely due to causes that were obviously unavoidable, the comparatively frequent occurrence of cases of tubercular disease has caused some disquietude in view of the overcrowded state of the building, to which reference has been made in previous reports. The question of the sufficiency of the present accommodation has formed the subject of a special report, and I need not reiterate what has already been said. It seems clear that additional accommodation, especially for males, will soon have to be provided, and in the meantime the locality to be chosen is a matter for consideration.

Buildings.—The extension of the female division, to which I have alluded on former occasions, has at last been completed. It consists of a two-storey block attached to the old south block, and having on each floor a verandah with eleven single rooms opening off it, a lavatory being provided at the further end of the building. Better provision for ventilation has been made than was the case in the old rooms, and the block is so placed that the prevalent winds blow across it; while the rooms, though not much larger than the older ones, give the impression of greater space, and look more cheerful. The relief afforded by it is very great—indeed, it is difficult to understand how it could have been done without for so long—but the amount of accommodation added is not quite so great as it seems, for previously some rooms, quite unfit for the purpose, had to be made use of as single rooms, and ceased to be so used when the new block became available. In a country such as this it is impossible to build in such a way as to provide the amount of ventilation necessary for comfort, and at the same time to prevent noise made by the inmates from being a source of disturbance to those outside; but regard was paid to this point when the site of the new building was chosen, and I think the inconvenience to the public has been minimized as far as was practically possible.

With the increase in the number of inmates the lavatory accommodation has become insufficient, and will soon require to be supplemented.

The Medical Superintendent's house, mentioned in my previous report as in course of erection, has been finished during the year under review, and constitutes an important addition to the equipment of the asylum. It is a handsome structure, situated near the main gate of the institution, and it reflects much credit on its architect, Mr. Taffs of the Public Works Department, and on those engaged in its erection.

Administration.—The water supply has at times been inadequate, and has thus led to some inconvenience. Unfortunately the asylum is at the end of a long branch of the water system, and there has recently been a large increase in the population of the district supplied by it, so that, while the asylum population has increased and needs more water, the supply available has diminished, especially during dry weather.

Numerous changes in the staff have taken place. The Assistant Medical Officer Miss Evelyn Davidson, whose appointment here was merely temporary, was replaced by Mr. K. J. de Silva, and the stewardship, vacant at the beginning of the year, was filled by the appointment (on probation) of Mr. E. Ludowyk. One of the two nurses resigned at the end of January. I have again to report well of the staff of attendants generally.

No really serious accidents occurred during the year; perhaps the gravest was sustained by a woman, who, in an attempt to escape, succeeded in getting on the top of the boundary wall, and in jumping down wounded her leg rather severely on the branch of an adjacent tree.

Industrial Department.—The industrial department has been, as usual, a valuable adjunct to the institution. The profit at the end of the year was Rs. 278.25 derived from investments.

Table showing the Forms of Mental Disorder in those admitted, discharged, and died in the Asylum in 1901.

Mental Disorder.	Remained.			Admitted.			Total treated.			Discharged.												Died.			Remaining.		
										Recovered.			Relieved.			Not improved.			Total.								
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.			
Mania	117	76 ^o	193	39	20	59	156	96	252	17	14	31	5	4	9	2	—	2	24	18	42	13	15	28	119	63	182
Melancholia	97 ^o	43 ^o	140 ^o	20	23	43	117	66	183	10	9	19	3	1	4	—	1	1	13	11	24	9	10	19	95	45	140
Dementia	66	52 ^o	118 ^o	1	—	1	67	52	119	—	—	—	—	—	—	—	—	—	—	—	—	—	9	14	62	43	105
Idiocy and imbecility	2	5	7	—	—	—	2	5	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	5	7
General paralysis	2 ^o	—	2 ^c	1	—	1	3	—	3	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	1	—	1
Epileptic insanity	18	7	25	7	2	9	25	9	34	—	2	2	1	—	1	—	—	—	1	2	3	5	2	7	19	5	24
Alternating insanity	1	—	1	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Stupor	—	—	—	1	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Not insane	7 ^o	1	8 ^o	9	1	10	16	2	18	—	—	—	—	—	—	12	2	14	12	2	14	2	—	2	2	—	2
Total	310	184	494	78	46	124	388	230	618	27	25	52	9	5	14	14	3	17	50	33	83	36	36	72	302	161	463

* The numbers so marked differ slightly from those given in the "remaining" column last year. This is due to the transfer of certain cases admitted near the end of 1900, and whose real nature was not then clear, from one heading to another.

(10) REPORT of the Medical Superintendent, Leper Asylum, Hendala, Mr. W. H. Meier.

I HAVE the honour to submit the annual report of the Leper Asylum, Hendala, for the year 1901.

(1) *The Asylum.*

The asylum is now close on two centuries of its existence since its foundation, according to Dutch authorities, in 1708, which date also appears on a stone tablet in the institution bearing a monogram (H.B.) on a shield, which has recently been deciphered by the Government Archivist as the initials of the Dutch Governor Hendrek Boeker, who held office in Ceylon from 1707 to 1716. The foundation of the asylum at the date mentioned is also confirmed by a statement in a Dutch paper recently published in Holland, and official correspondence at the period between the Dutch Governors of Batavia and Ceylon, from which it appears that "the leper hospitals (Lazarushuys) at Malacca, Amboina, Ceylon, and the Coast of Malabar were built respectively in the years 1697, 1701, 1708, and 1724;" and as regards the institution in Ceylon, "that it had 25 lepers and contained 48 rooms, each large enough for the accommodation of 28 patients, considered by the Government of Batavia as much too large for the purpose, being built on too extensive a scale." The asylum therefore existed as a Government institution long before the British occupation of Ceylon, and its transfer to the British Government by a Dutch lady, who was herself a leper, as generally believed, is apparently beyond the fact and mythical.

A later and interesting account of the asylum appears in a communication dated 17th March, 1842, from J. Kinnis, M.D., an Army Medical Officer, who served in Ceylon, to the *Edinburgh Medical and Surgical Journal*, which I may here quote :—

In October, 1834, and March and April, 1836, I paid seven visits to the Lunatic and Leper Hospital of Ceylon, and found at the first-mentioned date 25 lepers and 14 patients suffering from other diseases under treatment. Betwixt 1834 and March, 1836, there were admitted 12 lepers, and in March and April, 1836, the number of lepers in the institution had increased to 30. The officers and servants attached to the hospital were a Superintendent, an overseer, a medical sub-assistant, two gardeners, four female cooks, and two coolies for drawing water and carrying provisions from the bazaar, &c. Every patient was allowed by Government, monthly, one parrah of rice and four rixdollars, or 6 shillings sterling, which was expended for him in the purchase of other articles of food, his breakfast being hoppers (rice cakes) and coffee, his dinner and supper curry and rice. The daily expense of one patient's ration, in addition to that of the rice allowance, was about a fanam and a half, or six pice, which is equivalent to 2½d.

The daily cost of a patient's ration at present is 28 cents for a native and 50 cents for a European, and the daily average number of patients 272.29.

The asylum has since been reserved solely for lepers, having been considerably enlarged by the British Government, and numerous structural additions and improvements made, and its sanitary condition perfected in every detail for the convenience, comfort, and treatment of the inmates. It has now 19 wards, with accommodation for 328 patients, administration buildings, dispensary, dispenser's and steward's quarters, mortuary, soiled linen room, laundry, a regular and plentiful water supply in connection with the town supply, and a "Silchar cinerator" for the disposal of sewage. In addition, a Protestant Chapel, a Roman Catholic Church, and a Buddhist Pansala have been provided from private funds supplied by the several denominations for the special mode of the inmates.

Two necessary and important structural additions were made to the asylum during the year under review, a substantial and well-ventilated ward with bathrooms and latrines for 32 patients, and an infirmary with 16 beds for the separate treatment of sick lepers. The further extension of the asylum in view of the Lepers' Ordinance of 1901 and the extension of the cemetery attached to it, which is now overcrowded, are under consideration of Government.

(2) *Statistics.*

The general statistics for the year are as follows :—

		Males.		Females.		Total.
Remained on 1st January, 1901	...	222	...	56	...	278
Admitted during the year...	...	128	...	22	...	150
		—		—		—
Total treated	...	350	...	78	...	428
		—		—		—
Discharged ...	...	95	...	14	...	109
Died ...	...	32	...	11	...	43
Remained on 31st December, 1901	...	223	...	53	..	276

There has been a slight increase in the number treated, being 29 more than in the previous year. The largest number resident was 287, the lowest 259, and the daily average 272.97. The average amount of cubic space was 1,038.55 cubic feet, the superficial area 67.25 square feet. The number of available beds was 282. There was no overcrowding during the year.

Admissions.—The number admitted was 150, 13 more than in the previous year; seventy-nine were new cases and 71 re-admissions. Of the new cases, 37 were of the mixed, 7 of the anæsthetic, and 15 of the tubercular form of leprosy, the duration of the disease varying from three months to twenty years. Thirteen Indian immigrants were admitted, of whom 4 were labourers from tea estates in the Island. There are no prohibitive measures adopted preventing the landing of lepers from India.

The new cases admitted are chiefly from Colombo and the Provinces, being distributed as follows :—

Western Province.			Central Province.		
Residence.		No.	Residence.		No.
Colombo	...	19	Matale	...	1
Colombo District	...	5	Kandy District	...	3
Siyane korale	...	9	Nuwara Eliya	...	2
Salpiti korale	...	6			6
Rayigam korale	...	7			
Panadure	...	2			
Kalutara	...	1			
Pasdun korale	...	1			
Negombo	...	1			
		51			12
Southern India	...	9			

Discharges.—One hundred and nine lepers were discharged at their own request, of whom 93 were relieved and 16 showed no signs of improvement. Twenty-six patients absconded, a larger number than usual, in view of their compulsory detention in the asylum for life under the Lepers' Ordinance, which was passed during the year.

Deaths.—Forty-three deaths from leprosy and supervening diseases were recorded during the year, the duration of the disease in these cases varying from one to twenty-five years.

(3) Administration.

A few additions were made to the staff of attendants, four ward servants being employed for work in the new ward and infirmary. One European leper inmate volunteered his services, and is performing the duties with much intelligence and assiduity of hospital orderly in the infirmary. The apothecary, steward, and matron continued to perform their respective duties to my entire satisfaction during the year.

(4) Water Supply, Dietary, and Sanitation.

The water supply, dietary, and sanitation of the asylum were in every way satisfactory. The "Silchar cinerator," which has been in operation for the last four years, is still useful and in good working order.

(5) Bacteriological Investigations in Leprosy.

Bacteriological investigations were undertaken and carried out in the asylum during the year, with the permission of Government, by Dr. Van Houtum, and have served to confirm the observations of Jeanselene, Laurens, and Sticker on the condition of the upper air passages in cases of leprosy and the nasal origin of the disease. Jeanselene and Laurens are stated to have examined the air passages of 25 lepers, and in 15 they discovered affections of the nose and throat. These regions are therefore affected in 60 per cent. of the cases. These statistics referred only to the cutaneous or mixed form, and not to the nervous. Sticker examined 153 lepers in India and found the lepra bacilli present in the nasal secretion 128 times, as well in the anæsthetic as in the tubercular and mixed form of the disease.

Dr. Van Houtum's observations, which were very carefully made, do not entirely confirm Sticker's results. Of 205 lepers examined by him in the asylum, the lepra bacilli were present in 129 in the tubercular and mixed form of the disease, but none were found in the anæsthetic cases, 66 of which were examined by him. The results obtained were in accord with the clinical appearances and diagnoses of the cases on admission. On a rhinoscopic examination of the cases, the nostrils were found more or less ulcerated in the tubercular and mixed forms, the clinical history of the patients showing a previous recurring epistaxis during the earlier stage of the disease. As far as my observation extends, I have never found the nostrils affected in anæsthetic leprosy, nor have I observed in this form an occasional or recurring hæmorrhage from the nose, which is more frequently met with in the tubercular and mixed form of the disease. According to Jeanselene and Laurens, occasional but persistently recurring epistaxis may be one of the first symptoms of leprosy, and they suggest that it may be as indicative a symptom in leprosy as hæmoptysis is apt to be in pulmonary tuberculosis. Sticker is of opinion that as tuberculosis generally finds its first lodgment in the apices of the lungs, so leprosy most commonly originates in the nostrils. The "Nezen larguette," so frequently observed in tubercular and mixed cases, is caused by ulceration of the nostrils, the cartilage of the septum gives way, and the conformation of the nose alters.

Dr. Van Houtum in his investigations during the year has succeeded in obtaining a pure culture of the lepra bacilli in fish broth, all previous attempts at cultivation of the bacilli having proved futile. A report of his work in the asylum and the Bacteriological Institute in Colombo during the year has, I believe, been submitted by him to the Government of Ceylon.

(6) Outdoor Dispensary.

There was a large diminution in the number of patients treated as compared with the previous year, owing to a considerable decrease in the number of malarial cases. 1,487 patients attended the dispensary, as against 2,037 in the previous year; the collections, amounting to Rs. 486.10, were remitted to the Colombo Kachcheri. Seventeen new cases of leprosy and one previously reported received outdoor treatment at the dispensary. A return of these cases is included in the annual returns. The principal diseases treated were malarial fever, rheumatic affections, anæmia, respiratory diseases, diseases of the digestive system, dysentery, and skin affections.

Malarial Fever.—Malarial, remittent, and intermittent fever was more prevalent in January and December during the north-east monsoon, but not especially confined to any one locality, as it was in the village of Palliyawatta during the previous year. 369 cases were treated at the dispensary, as against 631 in 1900, and occurred chiefly in persons who were employed in plumbago pits.

Diarrhœa and Dysentery.—Of these, only 42 cases were recorded of a mild form and amenable to treatment.

Respiratory Diseases were of less frequent occurrence, and included 10 cases of pneumonia in sporadic form.

Rheumatic Affections occurred in 81 cases, being a slight increase in the number reported in the previous year.

The health of the district continued satisfactory, and there was general immunity from epidemic diseases during the year.

(7) *Garden Fund.*

The receipts from garden produce, Government allowance, and expenditure on betel, &c., during the year were as follows :—

					Rs.	c.
Receipts from garden	...	...	...	...	1,025	40½
Government allowance	...	...	...	...	747	23
				Total	1,772	63½
Expenditure on betel, &c. ...	...	...	...	...	1,540	14
				Balance	232	49½

The inmates received the usual Christmas gratuity and a handkerchief each from Government.

Their Excellencies the Governor and Lady Ridgeway, accompanied by the Principal Civil Medical Officer, visited the asylum on 1st November, 1901.

(11) REPORT of the Port Surgeon, Mr. H. A. Keegel, L.F.P. and S. Glas., L.R.C.P. Edin.

I HAVE the honour to submit my report for the year 1901. It was another year of immunity from plague and of comparative freedom from other forms of infectious disease introduced from without. It was, notwithstanding, a year of intense anxiety and suspense, involving the exercise of strict vigilance.

During the year one case of plague occurred on board the ss. "Parramatta" on her voyage from Bombay. The case proved fatal a few hours before the arrival of the vessel at Colombo; the body was buried at sea. The vessel took in coals, transhipment cargo, and passengers in strict quarantine and left for China.

The number of cases of infectious disease landed here from vessels and removed to the infectious diseases hospital was exceptionally small, and consisted as follows :—6 cases of smallpox, 2 of chickenpox, and 1 of measles. No cases of cholera occurred in the port during the year.

The regulations regarding the inspection of vessels and of all arrivals at this port, passengers or crew, and the disinfection of soiled linen remained unaltered. In August the hulk, which since its arrival here from Singapore in 1899 did duty as a hospital ship, was taken over by the police, and disinfection was carried on at a station established at Kochchikada, where suitable buildings were erected and a water supply laid on. Two Thresh's patent steam disinfectors have been fitted up in one of the blocks, while the others are used as waiting-rooms, lavatories, &c. The land round the station has been fenced in.

Disinfection.—During the year 984 cradles of soiled linen were disinfected, and a sum of Rs. 2,422·50 realized thereby was placed to the credit of Government.

Bills of Health.—The figures stand as follows :—

Outstanding at end of 1900	...	...	...	...	10
Issued during the year 1901	...	...	...	...	1,406
				Total	1,416
Deduct free bills	...	...	...	113	
Outstanding at end of 1901	...	...	...	8	
					121
				Balance	1,295

At Rs. 10·50 = Rs. 13,597·50.

This sum went to the credit of Government.

Staff.—During the year the services of the female Assistant Port Surgeon were discontinued. Mr. Alles, Sub-Assistant Colonial Surgeon, was replaced in September by Mr. H. P. Joseph, L.M.S., as Assistant Port Surgeon.

(12) REPORT of the Registrar, Ceylon Medical College, Dr. A. J. Chalmers, F.R.C.S. London.

Introductory.—I beg to report that I took over the duties of Registrar of this College at the end of March. I found the College very badly equipped and organized. There was an almost absolute lack of prizes or of any means to stimulate the pupil to work. Practical education was at a low ebb. The College Calendar was only a calendar in name, very little attention being paid to its rules.

General Medical Council of Great Britain.—During the year it has been found that the qualification of the College has been recognized since 1888 by the General Medical Council after a Privy Council order, and that the legal qualification was L.M.S. (Licentiate in Medicine and Surgery), and that this entitled the holder to practice in any of His Majesty's dominions, including Great Britain and Ireland, except where excluded by local law. It was then found that the regulations of the General Medical Council had not been conformed with, and this was rectified by—

- (1) The registration of students; this not having been properly carried out before.
- (2) The re-writing of the Calendar and bringing it into line with modern requirements and with the old standard of the College in 1885, which standard was the means of its being recognized in England.

Improvements in the Teaching, &c.—To remedy the defects in the College much has been done:—

- (1) A scheme for the proper working of the College and for the provision of laboratory, &c., in order that the teaching might be modern and up to date, has been laid before the Government.
- (2) A lecturer on Physics at Rs. 1,000 has been appointed, the Registrar taking over temporarily the duties of lecturer on Pathology and the work of Pathologist in the General Hospital without remuneration, thus liberating enough money to pay for the lecturer on Physics.
- (3) By the introduction of proper courses of instruction in—
 - Physics.
 - Organic Chemistry.
 - Extension of the Inorganic Chemistry.
 - Practical Inorganic and Organic Chemistry.
 - Extension of the Biology courses—more practical work.
 - Embryology.
 - Physiological Chemistry and practical work.
 - Pathological Chemistry and practical work.
 - Practical Toxicology.
 - More complete course of Practical Surgery.
- (4) By the appointment of Dr. J. de Silva, who is a skilled Bacteriologist, as lecturer on Bacteriology and temporary lecturer on Physics.
- (5) By improving the preservation of the anatomical bodies, so that they can be kept without any sign of decomposition for upwards of two months, thus allowing ample time for the proper dissection of the body.
- (6) Revision of the specimens in the Pathological Museum and the preparation of a provisional catalogue.
- (7) Improvements in the course of training of the apothecary students.
- (8) By many improvements in the office work of the College.

College Prizes.—To stimulate the students, the following prizes have been presented to the College by generous donors, chiefly through the kind influence of Drs. Sinnatamby, Attygalle, and De Silva:—

- (1) "The De Silva Medal," for Physics, by J. Clovis de Silva, Esq.
- (2) "The Sanmugam Gold Medal," for Physiology, by T. Sanmugam, Esq.
- (3) "The Nielsen Medal," for Practical Anatomy, by C. Leth Nielsen, Esq.
- (4) "The Tyagaraja Medal," for Materia Medica and Therapeutics, by N. Tyagaraja, Esq.
- (5) "The Loos Medal," for Pathology, by Mrs. Chalmers.
- (6) "The Dharmasiriwardena Gold Medal," for Midwifery, by A. S. Fernando Jayasekera, Esq.
- (7) "The Mathew Gold Medal," for Clinical Surgery, by C. Mathew, Esq.

License and Apothecary Certificate Examinations.—The examinations have been brought into line with modern requirements and definite rules formulated, so that every student may definitely know what is required of him before he is allowed to present himself for an examination.

The results of the examinations are now to be published in two classes: 1st, in order of merit; 2nd, alphabetically;

In order to stimulate the students, the Government has kindly given the following prizes:—

Preliminary.

- (1) The Medical Preliminary Government Scholarship.
- (2) Medical Preliminary Medal.

First Professional.

- (3) First Professional Medal.

Second Professional Medal.

- (4) Second Professional Government Scholarship.
- (5) Second Professional Medal.

Third Professional.

- (6) The Diploma Medal.

Apothecaries.

- (1) Apothecaries' Preliminary Scholarship.
- (2) Apothecaries' Preliminary Medal.
- (3) Apothecaries' First Examination Scholarship.
- (4) Apothecaries' First Examination Medal.
- (5) Apothecaries' Certificate Medal.

Students' Library.—A very few books have been obtained by fees drawn from the students. The library is open for reading purposes from 9 A.M. to 1 P.M. Books are, however, urgently needed for this library. Few as the books are, still the students find them very useful, and apparently much appreciate the kind gift of Mr. A. Simon Fernando Wijeygooneratna, Muhandiram.

College Publications.—In order to meet the needs of the students a series of practical manuals called Ceylon Medical College "Syllabus Series" has been started, and volume I., on Practical Physiological Chemistry, price Re. 1, has been published. It is hoped that during the next year one or two more of these practical volumes will follow.

Admission of Non-Medical Students.—In order to stimulate the knowledge of Science, which is sadly lacking in this Island, certain classes of the College have been thrown open to the general public upon payment of fees. These include Chemistry, Physics, Biology, Physiology, Embryology.

Original Work.—Some original work in connection with certain branches of medical knowledge has been begun by certain students in the College.

The Internal Working of the College.—This still leaves much to be desired, but a scheme has been forwarded to the Government to place the College on a firm basis and to provide a Council.

The Number of Students.—It appears that no proper record of the number of the students actually working in College was kept till last October. The May list was made on the old plan, and it was found that this was not accurate. During the year nine new medical students entered the College and nine apothecary students. In October, when the list was carefully made, there were—

Medical Students	...	...	...	...	76
Apothecary Students	...	...	...	...	52
Total					128

Fees.—The total amount of fees collected during 1901 was Rs. 12,991.44, which were arranged as follows :—

					Rs. c.
Credited to revenue	...	...	...	...	11,975 64
Preliminary examination fees	...	...	...	...	357 0
Library fees	...	...	...	...	658 0
Total					12,991 44

The total fees in 1898 were	...	...	...	...	7,272 0
Do. 1899 do.	...	...	...	...	7,703 0
Do. 1900 do.	...	...	...	...	11,208 0

Thus, the fees paid to revenue in 1901 showed an increase of Rs. 767 over the fees of 1900, and a total increase of Rs. 1,783 over the total fees in that year, while the increase over 1899 was Rs. 4,272, and over 1898 Rs. 4,703. In fact in three years the fees have nearly doubled.

Correspondence.—The correspondence of the College has increased very considerably, coming not merely from Ceylon, but India, England, the Straits Settlements, and Hongkong.

(13) REPORT of the Medical Officer in charge of the Lady Havelock Hospital, Mrs. M. N. Fysh, M.B. London.

I HAVE the honour to submit my annual report for 1901.

The total number of patients treated in this hospital during the year was 1,030, as against 934 in 1900, the number being larger than in any previous year. Of this number, 256 were children under ten, compared with 228 the year before, 113 being boys and 143 girls.

The total number of deaths was 71, giving a rate of 6.8 per cent.

There were 11 cases of enteric fever, with 2 deaths, giving a rate of 18.18 per cent. The diagnosis was in each case verified at the Bacteriological Institute by means of Widal's test. There were 32 cases of dysentery, with 5 deaths, giving a rate of 15.62 per cent. There were 47 surgical operations, with 2 deaths.

The number of cases of diseases peculiar to women was 148, as compared with 80 in the previous year. The total number of Mohammedans was 49.

There were 34 paying patients, as compared with 21 the year before, and only 14 in 1899. Of the 34, 19 were Europeans, 9 Burghers, and 6 Sinhalese.

The Nursing Staff and Training School.—Miss Wollen has continued her work as matron of the hospital to my great satisfaction, and since July, 1901, has been ably assisted by Miss Elinor Bell of St. Bartholomew's Hospital, London, who then took up duty as assistant matron in place of Miss Croft, who resigned in February.

The work of training the pupil nurses has proceeded satisfactorily. Three pupils were examined in July, and obtained certificates. One nurse only was moved before completing her training, and she was sent to the Kandy hospital in May.

The Branch Hospital, Borella.—The total number of patients treated in this hospital in 1901 was 298. Two died, one being a case of tertiary syphilis, greatly emaciated, with perforation of the palate and ulceration of the rectum. The other was a child prematurely born in the hospital (seven months), who lived only one day.

(14) REPORT of the Medical Superintendent of the De Soysa Lying-in Home, Dr. M. Sinnatamby, M.D. Brux., F.R.C.S.

I HAVE the honour to submit my annual report of the above institution for the year 1901.

The total number of patients treated during the year was 499, as against 521 in 1900 and 162 in 1890. Of the total number treated, 466 were discharged cured, 1 removed by relations relieved, 4 died, and 19 were remaining at the end of the year. The percentage of deaths to total treated was 0.80, as against 2.11 in 1900 and 3.08 in 1890. Of the 4 deaths recorded during the year, 1 was due to anchylostomiasis, 1 to dysentery, 1 to puerperal eclampsia, and 1 to hæmorrhage seven days after delivery (secondary post-partum hæmorrhage). Of 6 cases of puerperal eclampsia admitted, 1 proved fatal, giving a percentage of 16.66. The case of hæmorrhage occurred seven days after delivery. It came on suddenly, when the patient attempted to walk. Post-mortem examination proved that the hæmorrhage was from the placental site. The other two deaths were due to general diseases. One interesting fact worthy of note is that very few patients survive labour complicated with anchylostomiasis in its advanced stage. Of 487 admissions during the year, 475 were admitted before delivery and 12 after delivery. Of the 475 admitted before delivery, only 7 were admitted before commencement of labour.

In the following tables I have followed the classifications adopted in the Madras Maternity Hospital in a modified form :—

Table I.—Classification of Obstetric Cases.

Class.	Division.	Subdivision.	Admitted.
Natural	{ Purely natural Variety...	... Occipito-anterior	291
		... Occipito-posterior	10
			301

Class.	Division.	Subdivision.	Admitted.					
Difficult	{	Tedious ... Natural powers, over 24 hours ...	1	101				
		Laborious ... {	Forceps ...		90			
			Podalic version (placenta prævia) ...		6			
			Craniotomy (face) ...		1			
			Craniotomy (hydrocephalus) ...		1			
			Flat pelvis (forceps) ...		1			
		Obstructed ... {	Kyphotic pelvis (forceps) ...		1			
					100			
		Preternatural	{		Inverted ... {	Breech ...	8	14
						Foot ...	1	
Transverse ... {	Arm (version) ...			1				
	Shoulder (version) ...			1				
Compound ...	Head and hand ...			3				
				3				
Complex	{			Plural births ... Twins (version 2, forceps 2) ...	9	487		
		Premature ... (Version 5) ...	10					
		Abortion ...	18					
		Descent of the funis ... With head (forceps) ...	2					
		Anti-partum Hemor- rhage {	Accidental (4)					
			Placenta prævia (6)					
		Post-partum Hemor- rhage {	Primary (7)					
			Secondary (1)					
		Retained placenta ... {	Simple retention (7)					
			Morbid adhesion (7)					
		Ruptures ... {	Rupture of cervix (3)					
			Rupture of cervix and vagina (1)					
			Rupture of perinæum (10)					
			Delivered before arrival ...		39			
			Spurious ...		12			
					20			
				Total ...	487			

Table II.—Classification of the Diseases complicating Pregnancy at the time of Delivery.

General diseases	{	Anchylostomiasis ...	10
		Dysentery ...	8
		Syphilis { Primary ...	10
		... { Secondary ...	6
		Phthisis pulmonalis ...	2
		Malarial fevers ...	8
		Eclampsia ...	6
		Parangi ...	1
		Leprosy ...	1
Diseases of circulatory system :	{	Morbus cordis ...	2
		Asthma ...	3
Respiratory diseases	{	Pleurisy ...	1
Digestive system : Diarrhœa	{	... ..	15

Table III.—Mortality Table.

Mothers ...	{	Recovered ...	483
		Died ...	4
Children...	{	Born alive ...	456
		Born dead ...	40

Table IV.—Obstetric Operation.

Class.	Division.	Subdivision.		
Forceps	{	Difficult ... { Brow ...	1	103
		... { Head ...	92	
	{	Complex ... { Twins ...	5	
		... { Prolapse of cord ...	2	
	{	Preternatural ... { Head and hand ...	3	
		Compound ...	—	
Version podalic	{	Complex ... { Placenta prævia ...	6	15
		... { Twins ...	3	
		Premature births ... Small head ...	6	
Craniotomy	{	Difficult ... { Face ...	1	2
		... { Hydrocephalus (head) ...	1	
Evacuation of uterus	{	Abortion ... Removal of ovum and placenta ...	—	4
			—	
Separation and removal of placenta	{	Complex ... Morbidly adherent placenta ...	—	7
			—	
Acceleration of labour by water bags	{	Complex ... { Placenta prævia ...	1	3
		... { Puerperal eclampsia ...	2	
			—	—
			Total ...	134

Table V.—Presentation and Position classified.

Vertex	...	First	...	...	...	330
		Second	...	...	...	38
		Third	...	...	...	22
		Fourth	...	...	...	5
Breech	...	First	...	...	...	4
		Second	...	...	...	3
		Third	...	...	...	1
Face	...	First	...	...	...	1
Brow	...	First	...	...	...	1
Transverse	...	Dorso anterior	...	...	...	2
Complex	...	Descent of funis	...	...	...	2
		Twins	Both vertex	...	...	5
			Breech and vertex	...	...	3
			Breech and foot	...	...	1
Placenta prævia	...	...	...	...	...	6
Compound, head and hand	...	...	...	...	...	3
Premature	...	...	...	...	...	10
Abortion	...	...	...	...	...	18
Delivered before arrival	...	...	...	...	...	12
Spurious	...	...	...	...	...	20
Total						487

The admissions have more than trebled within the last ten years. One noteworthy feature was the admission of 8 patients belonging to the Mohammedan community.

The Lying-in Home as a training institution has been doing good work. During the year under review five paying and five native pupil midwives were admitted; five of the former and four of the latter received certificates on passing the required examination.

European systems of conducting labour will be appreciated more keenly if native pupil midwives were trained and sent to different villages all over the Island to replace the ignorant village midwives. This could be effected by encouraging village women to apply for admission into our training institution. Colombo has a sufficient number of midwives, and in future applications from residents other than in Colombo only should be entertained. Notices to medical officers and headmen in different parts of the Island should be issued to recommend women for the training institution. If sufficient inducement is held out by guaranteeing travelling expenses and the usual monthly stipend, I am sure within a short time a good number of midwives can be trained and sent to different parts of the Island, which will prove a great blessing to suffering humanity. All difficult cases of labour are now left to the tender mercies of ignorant village midwives, whose brutal treatment has on more than one occasion been prominently brought to my notice.

The equipment allowed proved quite inadequate to the requirements of the institution. The accommodation for nurses requires to be increased. Provision has been made to build two rooms, one to be utilized as an operating room and the other for treatment of septic cases.

The staff of the institution consists of a Medical Superintendent and a matron. The increase in the admission of paying patients has sorely taxed the energy of the matron. It is impossible for a single matron to attend to the paying and pauper patients of this institution. I will again urge the necessity of appointing an assistant matron to this institution.

The dispensing and a portion of the clerical work are done by an officer of the Ceylon Medical College, who receives Rs. 10 a month charged under Wages. The question of appointing a resident dispenser has become a necessity, as the officer of the College is only available at certain hours on week days. There are no paid attendants or paid nurses attached to this institution, and all cleaning and scrubbing and washing have to be done by the pupil midwives.

I cannot close this report without bearing testimony to the efficient work done by the matron.

(15) REPORT of the Director, Bacteriological Institute, Dr. Joseph S. de Silva, M.B., D.P.H.

FOR the greater part of the year 1901 I helped Dr. H. M. Fernando, the late Director, in carrying out the work that devolved upon this institute. From the beginning of March, soon after my arrival in Ceylon, I have been in daily attendance, not only doing the routine work, but undertaking some research work as well.

The routine work comprises the examination and analyses of various materials for Government and other institutions and private medical practitioners. The examinations are mainly in aid to the elucidation of the nature and in the diagnosis of different diseases. During the year the undoubted existence of diphtheria in the Island was conclusively proved after complete and thorough investigation; this fact had hitherto been a matter of considerable doubt owing to the want of positive proof.

The following is a list of analyses carried out at this institute during the year:—

(1) Examinations of sputa for the detection of the tubercle bacillus	...	145
(2) Examinations of blood for Widal's reaction (for typhoid fever)	...	178
(3) Examinations of secretions for the cholera bacillus	...	7
(4) Examinations of secretions for the detection of the diphtheria bacillus	...	3
(5) Examinations of other specimens	...	18

Of these, 41 specimens of sputa, 56 of blood for Widal's reaction, 2 of secretions for the diphtheria bacillus, and 6 other specimens were sent by private medical practitioners, the rest being all from Government institutions.

The Government institutions for which work was undertaken are the following:—

- (1) General Hospital, Colombo.
- (2) Lady Havelock Hospital, Colombo.
- (3) Infectious Diseases Hospital, Colombo.
- (4) Borella Convict Hospital, Colombo.
- (5) Police Hospital, Colombo.
- (6) Lunatic Asylum, Colombo.

In all nineteen different private medical practitioners took advantage of the help provided by this institute.

The work of 1901 shows a decided increase on that of the previous year, the year of the foundation and origin of the institute. Further, there is every evidence to show that this work will increase much more in the future. As private medical practitioners see the advantages of the aid offered to them, the number who seek such aid is sure to be greater as time goes on. No charges were made for the work undertaken for such practitioners or other departments during the year.

A new assistant, Mr. Arthur C. de Silva, was appointed in July, in succession to Mr. H. J. Fernando, L.M.S., who was transferred to the Kandy hospital as House Surgeon. The Directorship of the institute from its inception up to the end of the year was held by Dr. H. M. Fernando as an honorary appointment, and in addition to his other responsible duties.

From August Dr. Van Houtum, a Boer prisoner of war, with authority from Government, has been carrying on investigations on leprosy, a disease widespread in the Island, and the bacteriological aspect of which is yet obscure. The results of the investigation will be published at an early date.

(16) REPORT of the Chief Medical Officer, Prisoners of War Camp at Diyatalawa,
Mr. T. F. Garvin, M.B., C.M.

1.—GENERAL.

(a) *Strength.*

ON the 31st December, 1900, the number of prisoners of war in the Diyatalawa Camp was 4,256. Since then two batches arrived, the first of 590 on the 10th January, 1901, and the second of 103 on the 31st May, 1901. The strength of the camp at the end of each month and the daily averages were as follows :—

Month.				Strength at end of each Month.		Daily Average for the Month.	
January	...	...	...	4,493	...	4,380	
February	...	...	...	4,398	...	4,482	
March	...	...	...	4,345	...	4,363	
April	...	...	...	4,385	...	4,361	
May	...	...	...	4,466	...	4,378	
June	...	...	...	4,466	...	4,470	
July	...	...	...	4,479	...	4,470	
August	...	...	...	4,451	...	4,457	
September	...	...	...	4,224	...	4,313	
October	...	...	...	4,144	...	4,174	
November	...	...	...	4,091	...	4,098	
December	...	...	...	3,995	...	4,006	

From time to time prisoners of war were sent to the convalescent depôt at Mount Lavinia for change of air and scene, or were transferred to the subsidiary camps at Ragama, Urugasmanhandiya, and Hambantota.

(b) *Climate and Meteorology.*

A meteorological observatory was established in January, and complete observations have since been taken and recorded. The following is a summary of the observations of most interest :—

Month.			Adopted Maximum Temperature of Air for Month.	Highest Maxi- mum in Shade.	Mean Maxi- mum in Shade.	Lowest Mini- mum in Air.	Mean Mini- mum in Air.	Mean Degree of Humidity (Satura- tion = 100).	Rainfall.	Average Sunshine per Day.	Mean Amount of Cloud.	
			°	°	°	°	°	°	In.	Hours.		
January	...	...	66	77·5	73·8	50·7	58·2	74	2·00	—	—
February	...	...	69·2	80·8	76·7	53·5	58·2	71	3·54	—	5
March	...	...	69·9	80·7	77	50·5	58·4	68	3·71	—	4·5
April	...	...	71·6	82	78·8	57	61	71	9·21	—	5·7
May	...	...	73·5	85·5	80·8	56	61·9	63	4·20	9	4
June	...	...	71·8	82·8	78·7	52	61·4	63	3·31	8	5
July	...	...	72·9	84	80·2	55·2	61·2	55	—	9	4
August	...	...	74·1	85·2	82·1	53	60·9	52	0·21	9·5	4
September	...	...	72	83·2	79·3	58·8	61·2	64	5·31	6·9	5·2
October	...	...	71	83·8	78·4	54	60·1	65	4·10	7·6	5
November	...	...	68·8	80·8	75·4	52·6	59·8	72	4·37	6·9	6
December	...	...	66·8	78·5	73·2	52	58·2	73	4·13	6·5	5·5
For the year 1901			...	70·6	85·5	77·8	50·5	60	66	54·09	8	5

Rainfall.—The total rainfall for the year was 54·09 inches.

Humidity.—The average humidity of the atmosphere for the year was 66 per cent. of saturation.

(c) *Sick Rate.*

The total number of sick treated in the various hospitals in the camp during 1901 was 1,153. Of this number, 273 remained over on the 31st December, 1900, and 880 fresh cases were admitted during 1901.

The following table shows the average strength of the camp from month to month, the numbers admitted to hospital, and the ratio of sick to the average strength per 1,000 :—

Month.	Average Strength of Camp.	No. of all Cases admitted to Hospital.	Ratio of all Sick to Average Strength per 1,000.
January ...	4,380	123	28.08
February ...	4,482	59	13.16
March ...	4,363	78	17.83
April ...	4,361	86	19.72
May ...	4,378	73	16.67
June ...	4,470	113	25.28
July ...	4,470	51	11.40
August ...	4,457	65	14.58
September ...	4,313	62	14.37
October ...	4,174	61	14.61
November ...	4,098	50	12.20
December ...	4,006	59	14.72

(d) *Mortality Rate.*

The total number of deaths during 1902 was 32, and of this number 31 occurred in the hospital and 1 in the camp. The single death in camp was due to heart disease, and occurred quite suddenly. Thirty-one deaths in the hospital resulted as follows :—12 from enteric fever ; 19 from all other diseases.

The following table shows the ratio of all deaths to the average strength of the camp per 1,000 :—

Month.	Average Strength of Camp.	No. of Deaths from all Causes.	Ratio of all Deaths to Average Strength of Camp per 1,000.
January ...	4,380	3	0.67
February ...	4,482	6	1.31
March ...	4,363	7	1.60
April ...	4,361	2	0.45
May ...	4,378	2	0.45
June ...	4,470	—	—
July ...	4,470	3	0.67
August ...	4,457	3	0.67
September ...	4,313	—	—
October ...	4,174	3	0.71
November ...	4,098	1	0.24
December ...	4,006	2	0.50

Taking 4,329 as the daily average strength for the whole year, the mortality rate is 7.39 per 1,000, and excluding enteric deaths only 4.62 per 1,000.

2.—MEDICAL.

(1) *Staff.*

Professional.—The professional staff at the end of the year consisted of myself as Chief Medical Officer, L. A. Prins, L.M.S. (Ceylon), F. Keyt, L.M.S. (Ceylon), H. M. Leembruggen, L.M.S. (Ceylon).

Nursing.—The nursing staff at the end of the year consisted of Nurses Van Dadelszen and Nell. Sister Lucy, who was in full charge, left on the 31st March, 1901, and Nurse Gray retired in December.

The orderlies employed were reduced in number as the health in the camp improved. In January 36 of them were employed, at the end of the year only 15.

(2) *Hospitals.*

At the end of 1900 the available hospital accommodation consisted of 395 beds, as follows :—

	Beds.
Boer Hospital, Ward I. ...	25
Do. Ward II. ...	25
Do. Ward III. ...	8
Do. Ward IV. ...	25
Convalescent Hospital ...	24
Isolation Hospital ...	10
Segregation Hospital ...	42
Huts 37, 38, 39, 40 ...	200
Total ...	359

By the end of 1901 the following were abandoned :—

Huts 37, 38, 39, 40 ...	200
Wards III. and IV., Boer Hospital ...	33
Segregation Hospital ...	42
Total ...	275

and the number of beds in wards I. and II. of the Boer hospital were reduced to 18 each, and those in the isolation hospital to 8, and those in the convalescent hospital to 20, thus leaving 64 available beds for patients.

(3) *General Health.*

The general health of the camp steadily improved during the year, and at its end it could not be better.

(4) *Outdoor Dispensary.*

The total number of cases treated at the outdoor dispensary was 3,995 new cases and 5,064 old ones, making a total of 9,059 visits, or an average of about 25 per day.

(5) Diseases treated in the Hospital.

The total number of cases treated in the various hospitals during the year was 1,153. Of these, 31 died, 1,074 were discharged, and 48 remained under treatment.

Dysentery.—The total number treated was 72, of which 60 were admitted during the year. Three of these died, a mortality of 4·16 per cent. A large proportion of the cases were simple ; those that died were of a grave character.

Malarial Fevers.—The total number treated was 108. All recovered. They belonged to the class of intermittents and remittents in nearly equal proportions, and a large proportion were recrudescences of old malaria contracted in South Africa. Some undoubtedly developed in the camp, in and about which the number of anopheles was surprisingly small. The cases were relatively numerous in February, March, and April ; since then the numbers diminished, and in November and December the admissions were only one each month.

Debility.—No less than 156 cases of debility were treated, 155 being new admissions. One of these cases died. These cases constitute no less than 13·5 per cent. of all the patients during the year.

Nervous Diseases.—There were in all 24 cases of nervous diseases treated, and of these one, a case of cerebral apoplexy, died. There were two cases of mania and five of melancholia. The former were sent to the Lunatic Asylum, where one died. The cases of melancholia were mostly of a pronounced religious character.

Circulatory Diseases.—There were 6 cases, one of which—a case of valvular disease of the heart—died.

Respiratory Diseases.—Total treated 42. Of these, two died, one a case of pneumonia and the other a case of empyema.

Digestive Diseases.—Total treated 188. Of these, four died, one each from cancer of liver, cancer of stomach, peritonitis, and appendicitis.

Veneral Diseases.—There were remarkably few cases of these. A few prisoners of war contracted gonorrhea, and were treated at the dispensary.

Mumps.—In all 26 cases of mumps occurred in the camp. All terminated in recovery.

Enteric.—The total number of enterics treated during the year was 359. Of these, 111 were admitted during the year and 248 remained over in December, 1900. The number of deaths was 12, i.e., a percentage of 3·3 of the total number treated, or 10·9 of the total admitted during the year. The last case of enteric occurred on the 29th November. Since then there has been no admission under this head.

Operations.—The following is a list of the operations done during the year :—

Operation for strangulated hernia	...	...	...	1
Operation for radical cure of hernia	...	...	...	1
Incision and drainage of hydatid (suppurative) of liver	...	...	...	1
Operation for radical cure of hydrocele	...	...	...	1
Operation for phimosis	...	...	...	2
Incision and drainage of hepatic abscess	...	...	...	1
Incision and drainage of large abscesses	...	...	...	8
Ligature and incision of hemorrhoids	...	...	...	2
Sequestrotomy	...	...	...	1
Removal of non-malignant tumor...	...	...	...	4

Of these, the case of hydatid of liver and one of large abscess died. The rest recovered, and were at the end of the year convalescent.

III.—SANITARY.

Drainage.—No new drainage works of any extent or influence were undertaken since the date of my last report. The camp is at present very satisfactorily drained, and the soil kept free of humidity.

Water Supply.—The supply of water has been ample, and the quality as ascertained by repeated analysis good.

Food.—The daily ration has been more than ample.

Removal of Excreta.—The system in vogue, detailed in last report, is working satisfactorily. The general sanitary state of the camp has been satisfactory.

(17) REPORT of the Medical Officer, Prisoners of War Camp at Ragama,
Capt. W. P. Gwynne, R.A.M.C.

I.—GENERAL.

THE Boer Camp at Ragama was opened on 8th January, 1901, when 250 men and officers arrived from Diyatalawa :—

				Men.		Officers.
Second batch, January 10	...	...	...	21	...	4
Third batch, March 12	...	...	...	45	...	5
Fourth batch, August 4	...	...	...	6	...	6
Fifth batch, September 15	...	...	...	4	...	—
Sixth batch, October 14	...	...	...	35	...	—
The strength of the camp on—						Number.
January 31	...	...	...	...	...	284
February 28	...	...	...	...	...	283
March 31	...	...	...	...	...	333
April 30	...	...	...	...	...	327
May 31	...	...	...	...	...	323
June 30	...	...	...	...	...	318
July 31	...	...	...	...	...	314
August 31	...	...	...	...	...	315
September 30	...	...	...	...	...	305
October 31	...	...	...	...	...	331
November 30	...	...	...	...	...	322
December 31	...	...	...	...	...	316

Seventeen prisoners were released on medical grounds and nine for other causes. There are about twenty prisoners of war on parole at Jaffna, Kandy, or Nuwara Eliya.

II.—SANITARY.

Drainage.—There are surface cement drains all over the prisoners' enclosures, and they have proved most satisfactory, having been tested by heavy rain.

Water Supply.—The water is pumped from two wells close to the railway line into seven reservoirs, holding 6,460 gallons in all. The water is of good quality, as tested by three analyses during the year, and is sufficient for all requirements. It is distributed over the camp by stand-pipes. Two of the old cooly camp reservoirs have been utilized as swimming baths for the prisoners of war.

On the 14th December charcoal and sand chatty filters were instituted in the camp, two filters for each hut and two for each dining-room. This was done on account of the deposit of iron in the water from the reservoirs and pipe.

On 3rd November the following diet was recommended :—Beef or mutton $\frac{3}{4}$ lb., instead of 1 $\frac{1}{4}$ lb. ; peas or beans, dried, 4 oz., to make up for the loss of meat. The remainder of the ration to be as before. Since the 10th December, as no fruit was allowed in the camp from that date, $\frac{1}{2}$ oz. lime juice daily has been issued. The food is of good quality.

Removal of Excreta.—The latrines are worked on the dry-earth system. A pint of the following solution is put into each bucket every day : Corrosive sublimate 1 in 1,000, with ten parts of chloride of sodium, the solution being coloured with methyl blue. The buckets are emptied twice daily, and the excreta burnt in the incinerator, which is acting well. The urine is conveyed by cement drains into pits in which broken bricks and coke have been placed.

Ablution.—A large ablution room has been provided in each camp with concrete flooring sloping to a central drain. Tubs and buckets have been provided for washing purposes.

Dwellings.—These consist of cadjan huts with galvanized iron roofs and concrete floors. Each hut accommodates 55 prisoners, and is 100 feet in length and 25 feet in breadth.

Ventilation.—The upper portion of the side walls of the huts consist of cadjan tats, which are raised during the day, allowing thorough ventilation. All the beds and bedding are put out in the sun daily in fine weather, and clothes lines are provided for hanging out blankets, towels, clothing, &c.

Clothing.—This is issued liberally to the prisoners of war according to requirements and medical recommendation.

Recreation.—Swimming baths and horizontal and parallel bars have been provided for this purpose.

Climate and Meteorology.—The climate of Ragama is on the whole very good. Meteorological observations were taken from 15th January.

Rainfall.

Month.		Rainfall. Inches.	Greatest Fall any one Day. Inches.		No. of Days on which Rain fell.	
February	...	2.55	...	.94	...	8
March	...	5.58	...	1.52	...	11
April	...	10.13	...	1.97	...	21
May	...	6.20	...	1.78	...	20
June	...	10.56	...	2.08	...	26
July	...	8.84	...	2.14	...	17
August	...	.89	...	.42	...	7
September	...	3.96	...	1.88	...	13
October	...	6.84	...	1.74	...	16
November	...	27.44	...	5.29	...	23
December	...	2.23	...	.97	...	8

The largest rainfall on any one-day was 5.29 inches on 11th November. Rain fell on 170 days out of 317. The total rain registered was 84.22 inches.

Month.	Mean Temperature of Air.		Highest Maximum.	Mean Maximum.	Mean Minimum.	Lowest Minimum.	Mean Humidity.
January	...	—	92.1	88.9	71	66.9	—
February	...	85	93.4	90	71.4	67.8	73
March	...	85.4	93.9	91.2	72.4	67.7	72
April	...	86.1	93.2	91.2	73	71.6	74
May	...	85.5	92.3	90	74.1	70.7	72
June	...	82.5	90	87	73.6	70.4	80
July	...	82.1	88.2	86.4	76.6	70	82
August	...	82.3	92	88.8	73.5	71	80
September	...	84	93.4	89.2	71.9	70	78
October	...	82	90.4	87.3	71.4	68	78
November	...	81.6	89.6	85	68	66.8	72
December	...	84	91.2	88	67.4	69	80

III.—MEDICAL.

Hospital.—There is one hospital consisting of a ward with accommodation for 20 patients. There were 148 cases treated in hospital up till the end of December. Of these, 40 cases were dysentery of a mild form, which yielded easily.

The largest number in hospital on any one day was 14 ; the smallest 3. Percentage of sick to prisoners for the year was approximately 3.5. One death only occurred, due to enteric fever.

There have been three cases of enteric fever, all of which can be traced to having owed their origin to Diyatalawa.

There have been two cases of mumps, brought from the ship the prisoners landed from.

There have been twenty-one cases of ague treated in hospital, a mild form, and all in patients who had previously suffered from the disease elsewhere, and none acquired here.

A large number of patients attended hospital for "inflammation external meatus ear." Latterly there have been fewer cases of the above.

The hospital staff consists of myself in charge, an apothecary, and nurse orderlies from among the prisoners of war. These orderlies perform their duties to my entire satisfaction. Many prisoners have been recommended for change to Mount Lavinia, Jaffna, Hambantota, or Diyatalawa, and some for parole at their own expense.

The hospital supplies have been to my entire satisfaction. The invalid diets have been well cooked and served.

(18) REPORT of the Medical Officer, Prisoners of War Camp at Mount Lavinia,
Mr. V. van Langenberg, L.R.C.P., M.R.C.S.

General.—The strength of the camp on the 31st December, 1901, was 139. Transfers of prisoners of war have taken place six times during the year on the following dates, the average stay of a prisoner of war in this camp being about four months.

Date of Departure.				Date of Arrival.			
February 21	...	...	25	April 20	...	...	50°
April 20	...	...	43	April 23	...	...	97†
June 5	...	...	50	June 7	...	...	50
August 5	...	...	50	August 7	...	...	62
October 7	...	...	50	October 9	...	...	50
November 11	...	...	50	November 13	...	...	30
February 23	...	...	25				

* From ss. "Atlantian." † From Diyatalawa.

General Health.—No case of serious illness has occurred in the camp, and the general health has been very satisfactory. The number treated at the outdoor dispensary for each month is as follows:—

January	...	...	...	...	...	21
February	...	...	...	...	...	35
March	...	...	...	...	...	27
April	...	...	...	...	...	110
May	...	...	...	...	...	301
June	...	...	...	...	...	212
July	...	...	...	...	...	184
August	...	...	...	...	...	277
September	...	...	...	...	...	229
October	...	...	...	...	...	189
November	...	...	...	...	...	113
December	...	...	...	...	...	59
Total						1,051

The daily average for the year was 4·81.

The diseases treated were of minor importance, the chief complaints being dyspepsia and diarrhœa. A few mild cases of malarial fever and dysentery also came under treatment, and were generally cured in two or three days.

Five prisoners of war, who were not benefited by the change, were allowed to return to Diyatalawa.

Hospital.—A small hospital of three beds was opened on the 29th October, and is located in the guard room of the permanent military barracks. There were four cases treated in hospital up to the end of the year. Cases, however, which require prolonged hospital treatment continue to be sent to the General Hospital, Colombo. Twenty such cases were transferred during the year, among whom were 3 cases of enteric fever (relapses?), 2 of dysentery, 1 of appendicitis, 2 of abscess of the liver, 1 of hydatid cyst of the lung, 1 of cancer of the stomach, and 1 of pernicious anæmia.

Deaths.—Two deaths occurred in the camp during the year: (1) Uræmia (chronic Bright's disease); (2) meningitis, result of over-exposure to the sun.

Water.—The water is good, and is obtained from a well near the camp. It is filtered before being issued to the prisoners of war.

Food.—The food is of good quality, and the complaints have been very few and of no consequence. The cooking is done by native cooks, and the prisoners of war seem very satisfied with it.

Latrines and Urinals.—The latrines are worked on the dry-earth system. The buckets containing the solid excreta are emptied once a day, and before being returned are washed and charged with a solution of Jeye's or Macdougall's fluid. Each latrine has a galvanized iron trough for urine fitted in it, and the urine is carried by means of a pipe to an open drain, which empties itself into a pit filled with broken brick and dressed with sulphate of iron.

Buildings.—The huts occupied by the prisoners of war, four in number, are lofty and well ventilated. Two huts accommodate 25 each and two 50 each. There is also a large dining-hall fitted with ten tables and seating accommodation for 100 men.

Baths, &c.—Every facility is afforded the prisoners of war for fresh water bathing, and they are provided with an excellent bathing-place with fourteen cement baths. They also bathe in the sea, but they have been informed that the coast is dangerous.

Drainage.—Two well-built cement surface drains carry away the slops and storm water from the camp, and have proved satisfactory.

Exercise and Recreation.—The prisoners of war are allowed to roam about at will on the seashore, a mile of which is at their disposal, between the hours of 6 and 9 in the morning and 4 and 6·30 in the evening. Football and quoits are favourite outdoor games.

Clothing.—Clothing is issued liberally. An inspection of “kit” is made once a week.

Staff.—The staff consists, besides myself, of an apothecary and a hospital orderly, a prisoner of war.

(19) REPORT of the Medical Officer, Prisoners of War Camp at Urugasmanhandiya,
Mr. V. van Langenberg, L.R.C.P., M.R.C.S.

GENERAL.

THE camp at Urugasmanhandiya was opened on the 11th September, 1901, when 4 officers and 172 men arrived from Diyatalawa, and this number was added to from time to time. The strength of the camp on the 31st December, 1901, was 356 (officers 4, men 352).

SANITARY.

Situation.—The camp, which is 4 miles from the Kosgoda railway station on the road to Elpitiya, is pitched on high ground, well above the surrounding paddy fields.

Drainage.—The slops and storm water are carried away by large surface drains, which have proved very satisfactory.

Buildings.—The huts occupied by the prisoners of war are built of mud and wattle, with thatched roofs and floors of rammed earth. The side walls are about 3 ft. high, the upper portion consisting of cadjan tats, which can be raised or lowered as required. The huts are lofty and well ventilated. Each hut is about 120 ft. long and 15 ft. wide, and accommodates 46 men. There are four separate huts for the men to dine in.

Water.—The drinking water is obtained from a well near the camp. It is of good quality as reported by analysis, and there is a plentiful supply. The water is pumped into water carts and is distributed round the camp.

Food.—The food is of good quality, and the cooking, which is done by native cooks, is excellent. The complaints have been very few and of no consequence. Alcoholic drinks are allowed and are sold in the camp at very moderate prices. Each prisoner of war is permitted to buy 1 glass of spirits or 2 pints of beer or stout a day.

Latrines and Urinals.—There are two sets, one at the eastern and the other at the western end of the camp. The latrines are worked on the dry-earth system. The buckets are emptied once a day, and the solid excreta buried in pits at a great distance from the camp. Each urinal is fitted with a galvanized iron trough, and the urine is conveyed by means of a short pipe to an open cement drain, which empties itself into a pit filled with broken brick and dressed with sulphate of iron.

Baths and Wash-houses.—There is an ample supply of water for bathing purposes. The bathroom has a cement floor impermeable to fluids. There are two wash-houses for the washing of clothes, provided with tubs, buckets, and tables.

Exercise and Recreation.—Prisoners of war are free to go anywhere within a radius of 3 miles from the camp, and this privilege is freely availed of. In addition, special permits to Kosgoda and other places in the vicinity are granted to a certain number every day. Football, cricket, and quoits are favourite outdoor games. A school was opened early in December, and is very popular.

Clothing.—The men are well provided with clothing.

Climate and Meteorology.—The climate is on the whole good. Meteorological observations were begun on the 29th October. The highest maximum temperature recorded was 88, the lowest 81; the highest minimum was 78, the lowest 66. The total rainfall was 6.73 inches. The rainfall was not estimated till early in December.

MEDICAL.

General Health.—The general health has been very good, and I think that the comparative freedom which the prisoners of war enjoy here in no small measure accounts for this satisfactory state of affairs. The numbers treated at the outdoor dispensary were—

September	...	...	...	...	...	173
October	...	...	...	...	...	187
November	...	...	...	...	...	142
December	...	...	...	...	...	151
Total						653

making a daily average of 5.83. The diseases treated were of minor importance.

Hospital.—The hospital consists of two wards accommodating ten patients. The number treated in hospital up to the end of the year was 46, the admissions each month being as follows:—

September	...	...	9	November	...	...	11
October	...	...	8	December	...	...	18

The largest number in hospital at any one time was five, and the smallest number one. There have been no deaths.

Segregation Camp.—The Ceylon Mounted Infantry hill and the huts standing on it will be used as a segregation camp should any infectious disease break out in the camp.

Staff.—The staff consists, besides myself, of an apothecary, a nurse orderly from among the prisoners of war, and two native attendants.

(20) REPORT of the Medical Officer, Prisoners of War Camp at Hambantota, Mr. A. Chinniah.

General.—The Boer camp at Hambantota was opened on the 19th September, 1901, when a batch of prisoners of war was sent from Diyatalawa, numbering 57, of whom 32 were officers and 25 Burghers; since then 2 officers left. The jail is converted into a camp. The situation of the camp is on a high ground and well suited for the purpose.

Water Supply.—The water is supplied by a contractor from wells dug at Indiwewa, about ¾ mile from the camp. The water for drinking is filtered.

Baths.—The prisoners of war freely use sea baths. Two zinc baths are supplied in a bath-room for the officers, and a separate cement bath for the Burghers, also four hand tubs for washing purposes to the officers and two for Burghers.

Drainage.—The arrangement is satisfactory.

Food.—The food is wholesome and nutritious. The daily ration is the same as supplied at Diyatalawa, but mutton is supplied twice a week. The food is cooked by coolies employed for the purpose and supervised by prisoners of war.

Removal of Excreta.—The excreta are removed twice daily and thrown into the sea. The latrines are worked on dry-earth system, Jeye's or Macdougall's fluid being used for each bucket, four buckets for each section, and two urine buckets for officers and one for Burghers.

Dwellings.—Four rooms and nine cells for officers and three big rooms for Burghers are allowed, the space being sufficient for each individual. They are also given two separate dining-rooms, one for each. The rooms are sufficiently ventilated.

Exercise and Recreation.—They are at full liberty to move about from 5 A.M. to 8 P.M. Consequently they have ample exercise, also recreation, such as swimming and walking.

Clothing.—Extra clothes are supplied here freely by Government to those who require the same.

Staff.—I took over charge of this camp on the 15th November, 1901, from Dr. Leembruggen, and I had to dispense.

General Health of the Camp, on the whole, is very satisfactory.

Outdoor Dispensary.—The total number treated was 255, old cases 92 and new cases 163.

STATISTICS.

Table I.—Estates Medical Aid : Receipts and Expenditure in the District and Civil Hospitals during 1901.

RECEIPTS.			EXPENDITURE.		
<i>District Hospitals.</i>			<i>District Hospitals.</i>		
	Amount.	Total.		Amount.	Total.
	Rs. c.	Rs. c.		Rs. c.	Rs. c.
1. Diets : paid by estates at 30 cents a day ...	47,514 40		1. Diets : for estate labourers and "others" ...	130,781 9	
2. Diets : paid by Government for "others" at 50 cents a day ...	39,297 0		2. Medicines supplied from Civil Medical Stores ...	41,806 19	
3. Funeral expenses of "others" ...	955 35		3. Funeral expenses of estate labourers and "others" ...	3,407 27	
4. (a) Medicines sold and prescriptions compounded at dispensaries ...	7,828 96		4. Salaries of District Medical Officers, allowances, &c. ...	118,368 96	
(b) Collections at dispensaries ...	1,281 47		5. Departmental expenditure ...	3,154 64	
(c) Medicines used by "others" in hospitals ...	16,459 78		6. Maintenance and repairs to buildings ...	136,994 64	
(d) Medicines used by "others" at dispensaries ...	16,193 30		7. Rent of outdoor dispensaries ...	10,588 50	
5. Paid by estates for visits ...	18,870 50		8. Transport of medicines and other miscellaneous charges ...	2,860 76	
6. Sale of drugs, unserviceable articles, &c., from Civil Medical Stores ...	2,498 23		9. Equipment ...	22,313 65	
7. Recoveries for maintenance of "others" ...	2,526 40		10. Wages of apothecaries, attendants, &c. ...	42,910 7	
		153,425 39	11. Contingencies ...	7,181 30	
			12. Printing ...	3,006 17	
			13. Nursing service ...	4,787 55	
			14. Exchange compensation ...	2,207 97	
				530,368 76	
			<i>Civil Hospitals.</i>		
			1. Diets : estate labourers ...	17,930 35	
			2. (a) Medicines used by above in hospitals ...	6,551 54	
			(b) Medicines used by estate labourers at dispensaries ...	555 52	
			3. Funeral expenses of estate labourers ...	106 13	
				25,143 54	
			1. Value of medicines supplied to district dispensaries ...	26,380 87	
			2. Value of medicines, &c., supplied to estate dispensaries ...	35,311 65	
				61,692 52	
			Total ...	617,204 82	
<i>Civil Hospitals.</i>					
1. Paid by estates for labourers at 30 cents a day ...	17,764 30				
2. Paid by estates for visits ...	2,932 0				
		20,696 30			
Grand Total ...	—	174,121 69			
Export Duty ...	—	134,800 97			
Deficit ...	—	308,282 16			
Total ...	—	617,204 82			

Table II.—Statement of Expenditure under the Medical Aid Ordinance during 1901.

	Number of Patients.	Number of Days in Hospital.	Other than Estate Labourers.	Number of Days in Hospital.	Provisions and other Necessaries.				Equipment.	Funeral Expenses.	Wages of Apothecaries, Attendants, &c.	Contingencies.	Medicines supplied from the Civil Medical Stores.	Total Expenditure.	Grand Total.
					Diets.	Extra Articles of Diet.		Total Provisions.							
					Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.	Rs. c.
<i>District Hospitals.</i>															
Dikoya ...	618	15,463	240	88	9,270 21	41 46	293 29	9,604 96	938 45	402 50	1,748 0	397 73	2,423 43	15,515 7	
Lindula ...	939	18,666	272	2,438	10,193 33	96 52	626 5	10,915 90	1,693 94	263 55	2,547 13	590 68	3,535 35	19,546 55	
Kelebokka ...	319	7,742	167	1,526	3,568 0	9 90	48 70	3,626 60	799 60	120 0	1,344 0	440 97	1,240 5	7,571 22	
Uda Pussellawa ...	232	5,042	152	1,792	3,442 8	24 91	89 41	3,556 40	406 34	165 91	1,380 0	444 50	2,032 56	7,985 71	
Haputale ...	337	6,208	420	7,021	6,694 14	140 76	270 51	7,105 41	930 96	—	2,256 0	306 67	2,250 71	12,849 75	
Lunugala ...	337	10,861	106	1,924	3,921 12	54 60	56 37	4,032 9	446 63	120 0	1,589 99	128 17	1,910 32	8,227 20	
Karawanella ...	1,100	37,523	1,174	21,371	23,471 69	56 24	606 82	24,134 75	2,628 78	240 0	3,262 6	598 84	3,926 1	34,790 44	
Maskeliya ...	644	12,033	141	2,678	6,290 30	13 83	249 9	6,553 22	1,103 90	230 40	1,890 0	422 76	1,994 2	12,194 30	
Deltota ...	302	5,461	134	1,358	2,659 70	1 34	30 24	2,691 28	638 43	—	1,611 10	134 41	1,447 33	6,522 55	
Rakwana ...	444	8,015	581	6,009	5,517 55	121 51	207 50	5,846 56	770 51	173 0	1,337 50	237 37	2,227 75	10,592 69	
Balangoda ...	620	20,437	673	13,360	16,147 94	43 16	980 92	17,172 2	1,210 49	230 50	2,015 16	366 20	2,480 72	23,475 9	
Nawalapitiya ...	552	13,695	477	3,812	7,341 7	—	125 34	7,466 41	1,465 20	381 60	1,133 0	486 14	2,806 45	13,738 80	
Avisawella ...	817	20,207	547	5,144	8,676 22	136 18	490 0	9,302 40	2,549 20	375 64	1,890 0	859 27	2,893 61	17,870 12	
Neboda ...	793	12,819	52	637	4,697 46	16 25	607 36	5,321 7	845 58	128 50	1,938 20	242 20	1,909 84	10,385 39	
Teldeniya ...	206	5,113	266	3,407	2,925 98	45 99	219 47	3,191 44	365 79	156 25	1,805 50	131 28	1,946 55	7,596 81	
Ramboda ...	228	7,493	149	3,762	5,665 84	22 67	97 80	5,786 31	670 39	125 0	1,854 0	297 43	1,347 60	10,080 73	
Deniyaya ...	408	8,562	226	2,247	4,119 48	163 90	162 89	4,446 27	555 38	294 42	1,524 23	261 34	1,297 25	8,378 89	
Maturata ...	—	—	—	—	—	—	—	—	1,375 80	—	150 0	382 27	713 75	2,621 82	
Dimbula ...	—	—	—	—	—	—	—	16 0	1,125 33	—	598 50	143 93	1,582 87	3,466 63	
Pussellawa ...	—	—	—	—	—	—	—	12 0	1,264 36	—	652 50	79 33	1,840 2	3,848 21	
Civil District Hospitals	3,121	79,373	14,771	190,572	—	—	—	17,930 35	—	106 13	—	—	6,551 54	24,588 2	
Total	12,017	294,713	20,548	269,146	124,602 11	989 22	5,161 76	148,711 44	21,785 6	3,513 40	32,526 87	6,951 49	48,357 73	261,845 99	
<i>District Dispensaries.</i>															
Elkaduwa ...	—	—	—	—	—	—	—	—	25 73	—	480 0	9 8	1,517 27	2,032 8	
Madulsima ...	—	—	—	—	—	—	—	—	15 12	—	120 0	9 34	631 65	776 11	
Muppane ...	—	—	—	—	—	—	—	—	4 86	—	120 0	12 59	878 4	1,015 49	
Agrapatana ...	—	—	—	—	—	—	—	—	4 74	—	678 0	12 72	868 9	1,563 55	
Watawala ...	—	—	—	—	—	—	—	—	30 66	—	648 0	31 7	974 25	1,683 98	
Bogawantalawa ...	—	—	—	—	—	—	—	—	48 72	—	516 0	9 50	2,363 86	2,938 8	
Dolosbage ...	—	—	—	—	—	—	—	—	—	—	576 50	13 0	1,293 78	1,883 28	
Koslanda ...	—	—	—	—	—	—	—	—	9 9	—	120 0	8 8	932 24	1,069 41	
Haldummulla...	—	—	—	—	—	—	—	—	14 55	—	120 0	7 10	660 94	802 59	
Rattota ...	—	—	—	—	—	—	—	—	79 40	—	578 96	7 7	1,333 88	1,999 31	
Kotmale ...	—	—	—	—	—	—	—	—	4 18	—	648 0	0 81	423 4	1,076 3	
Galagedara ...	—	—	—	—	—	—	—	—	26 20	—	516 0	15 26	1,085 48	1,642 94	
Bandarawela ...	—	—	—	—	—	—	—	—	4 80	—	120 0	2 3	864 87	991 70	
Rangalla ...	—	—	—	—	—	—	—	—	29 0	—	287 74	0 48	449 75	766 97	
Passara ...	—	—	—	—	—	—	—	—	5 28	—	150 0	7 29	1,171 69	1,334 26	
Gammaduwa ...	—	—	—	—	—	—	—	—	3 87	—	480 0	16 21	847 13	1,347 21	
Watagoda ...	—	—	—	—	—	—	—	—	1 20	—	144 0	1 15	684 76	831 11	
Aranayaka ...	—	—	—	—	—	—	—	—	30 90	—	1,380 0	1 25	960 31	2,372 46	
Udugama ...	—	—	—	—	—	—	—	—	40 78	—	480 0	7 20	1,701 81	2,229 79	
Kadugannawa ...	—	—	—	—	—	—	—	—	—	—	120 0	2 75	1,265 75	1,388 50	
Elpitiya ...	—	—	—	—	—	—	—	—	25 73	—	582 0	18 24	695 5	1,321 2	
Pundalu-oya ...	—	—	—	—	—	—	—	—	9 50	—	120 0	4 85	477 47	611 82	
Kandy ...	—	—	—	—	—	—	—	—	—	—	528 0	—	1,746 16	2,274 16	
Kitulgala ...	—	—	—	—	—	—	—	—	29 37	—	120 0	5 81	847 2	1,002 20	
Nanu-oya ...	—	—	—	—	—	—	—	—	27 28	—	150 0	11 65	402 23	591 16	
Tonacombe ...	—	—	—	—	—	—	—	—	27 80	—	480 0	5 88	657 8	1,170 76	
Wattegama ...	—	—	—	—	—	—	—	—	29 83	—	120 0	9 40	647 27	806 50	
Estate Dispensaries	—	—	—	—	—	—	—	—	—	—	—	—	35,311 65	35,311 65	
Civil Dispensaries	—	—	—	—	—	—	—	—	—	—	—	—	555 52	555 52	
Total	—	—	—	—	—	—	—	—	528 59	—	10,383 20	229 81	62,248 4	73,389 64	
Grand Total	12,017	294,713	20,548	269,146	124,602 11	989 22	5,161 76	148,711 44	22,313 65	3,513 40	42,910 7	7,181 30	110,605 77	335,235 63	335,235 63
<i>General.—Salaries and Allowances of Government Medical Officers, &c.</i>															
Exchange Compensation	...	...	...	...	...	...	...	...	...	...	...	...	...	118,368 96	
Nursing Service	...	...	...	...	...	...	...	...	...	...	...	...	...	2,207 97	
Salaries of Extra Clerks, &c.	...	...	...	...	...	...	...	...	...	...	...	...	...	4,787 55	
Maintenance and Repairs to Buildings	...	...	...	...	...	...	...	...	...	...	...	...	...	3,154 64	
Transport of Medicines and other Miscellaneous Charges	...	...	...	...	...	...	...	...	...	...	...	...	...	136,994 64	281,969 19
Rent of Outdoor Dispensaries	...	...	...	...	...	...	...	...	...	...	...	...	...	2,860 76	
Printing	...	...	...	...	...	...	...	...	...	...	...	...	...	10,588 50	
	...	...	...	...	...	...	...	...	...	...	...	...	...	3,006 17	617,204 82

Table III.—ESTATE DISPENSARIES.

			Rs.	c.				Rs.	c.		
Abbotsford, &c.	...	Nanu-oya	...	276	0	Mahadova	...	Lunugala	...	161	89
Ambalawana	...	Deltota	...	453	10	Mocha	...	Maskeliya	...	399	19
Agar's Land	...	Balangoda	...	276	19	Mooloya	...	Kandy	...	754	53
Attabage, &c.	...	Pussellawa	...	309	53	Moray	...	Maskeliya	...	184	64
Annfield	...	Dikoya	...	244	89	Morankanda, &c.	...	Madawalatenna	...	180	76
Arington	...	Yatiantota	...	106	96	Mipitikanda	...	Karawanella	...	176	0
Avisawella	...	Avisawella	...	266	30	Mudamana	...	Kitulgala	...	208	27
Bambarabotuwa	...	Ratnapura	...	306	78	Nahalma	...	Avisawella	...	126	48
Beverley	...	Morawaka	...	624	46	Nilambe	...	Deltota	...	360	99
Cabragalla	...	Koslanda	...	402	9	Norwood	...	Hatton	...	386	80
Campion	...	Bogawantalawa	...	315	28	North Matale	...	Matale	...	474	67
Chesterford, &c.	...	Veyangoda	...	160	28	Osborne, &c.	...	Hatton	...	171	85
Clunes	...	Dehiowita	...	297	9	Pantiya	...	Neboda	...	267	68
Clodagh	...	Matale	...	331	0	Penrith	...	Avisawella	...	333	53
Cocagalla	...	Lunugala	...	279	47	Pitakanda	...	Kurunegala	...	334	0
Concordia	...	Nuwara Eliya	...	932	97	Panawatta	...	Yatiantota	...	332	46
Condegalla	...	Ramboda	...	136	91	Pallekele	...	Kandy	...	274	93
Debatgama	...	Aranayaka	...	230	97	Polatagama	...	Karawanella	...	259	40
Daisy Valley	...	Kurunegala	...	100	0	Queensberry	...	Kotmale	...	507	88
Degalessa	...	Karawanella	...	352	73	Ragalla	...	Uda Pussellawa	...	361	30
Delwita	...	Kurunegala	...	345	20	Rassagala	...	Balangoda	...	717	7
Delta	...	Pussellawa	...	150	4	Rayigama	...	Horana	...	250	0
Dewalakanda	...	Karawanella	...	206	8	Roeberry	...	Lunugala	...	177	33
Digalla	...	Dehiowita	...	187	34	Rondura, &c.	...	Kitulgala	...	277	50
Diyagama	...	Agrapatana	...	238	44	Rookwood	...	Hewaheta	...	36	24
Drayton	...	Dimbula	...	283	10	Sapumalkanda	...	Dehiowita	...	254	28
Duckwari	...	Rangala	...	384	44	Spring Valley	...	Badulla	...	360	53
Dunedin	...	Karawanella	...	318	32	St. Leonard's	...	Nuwara Eliya	...	465	41
Dunsinane	...	Pundalu-oya	...	201	85	Sarnia	...	Badulla	...	527	81
Edarapola	...	Kegalla	...	344	76	Sunnycroft	...	Veyangoda	...	611	72
Eadella	...	Polgahawela	...	191	35	Tangakele	...	Lindula	...	387	28
Eila	...	Karawanella	...	299	41	Theresia, &c.	...	Bogawantalawa	...	405	93
Elfindale	...	Watawala	...	272	18	Troy	...	Karawanella	...	425	0
El Teb	...	Passara	...	300	73	Udabage	...	Kitulgala	...	380	66
East Holyrood	...	Dimbula	...	349	6	Unugalla, &c.	...	Badulla	...	383	43
Ganepalla	...	Karawanella	...	308	42	Ury, &c.	...	Passara	...	401	16
Galatura	...	Ratnapura	...	237	92	Uva	...	Madulsima	...	106	49
Gikiyanakanda	...	Neboda	...	331	30	Venture	...	Norwood	...	390	33
Glen Alpin	...	Badulla	...	182	95	Vellai-oya	...	Watawala	...	378	43
Glenlyon, &c.	...	Agrapatana	...	282	92	Vogan	...	Neboda	...	250	0
Glassel	...	Dehiowita	...	344	86	Waharaka	...	Kegalla	...	172	54
Goorookeli	...	Deltota	...	365	59	Warwick, &c.	...	Ambawela	...	420	49
Hauterville	...	Agrapatana	...	429	50	We-oya	...	Karawanella	...	503	42
Hemmingford	...	Avisawella	...	454	92	Westhall	...	Kotmale	...	221	94
Halwatura	...	Panadure	...	476	52	Waverly	...	Agrapatana	...	449	22
Halgolla	...	Yatiantota	...	300	0	Weywelhona	...	Badulla	...	552	23
Hayes	...	Morawaka	...	200	72	Woodend	...	Dehiowita	...	25	33
Helboda	...	Pussellawa	...	396	16	Yataderiya	...	Kegalla	...	617	96
High Forest	...	Maturata	...	398	96	Yatawatta	...	Matale	...	217	12
Katugastota	...	Katugastota	...	249	11	Yogama	...	Dehiowita	...	378	30
Katoologya	...	Madulkele	...	376	48	Yoxford	...	Watagoda	...	544	49
Lavant	...	Karawanella	...	267	96						
Laxapana	...	Maskeliya	...	486	75						
Lebanon, &c.	...	Madulkele	...	722	94						
Lynsted	...	Bogawantalawa	...	137	49						
									Total	...	35,311 65

Table IV.—Statement showing the different Towns where outbreaks of Cholera occurred during 1901, giving the Dates and Duration of each outbreak, the Number of Cases, and classifying them into different Races.

	Number of Cases and Deaths.		Date of First Appearance.	Date of Last Case.	Of these												Total.	
					Sinhalese.		Moors.		Tamils.		Immigrants.		Malays.		Others.			
	Cases.	Deaths.			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.		
WESTERN PROVINCE.					1900.		1901.											
Negombo	3	2	Dec. 25	Jan. 2	2	1	—	—	1	1	—	—	—	—	—	—	3	2
Ragama Camp	1	1	1901. Jan. 12	Jan. 12	—	—	—	—	—	—	1	1	—	—	—	—	1	1
Do.	2	2	March 16	March 16	—	—	—	—	—	—	2	2	—	—	—	—	2	2
Do.	2	2	Nov. 11	Nov. 20	—	—	—	—	—	—	2	2	—	—	—	—	2	1
Do.	1	1	Dec. 9	Dec. 9	—	—	—	—	—	—	1	1	—	—	—	—	1	—
Total	9	8			2	1	—	—	1	1	6	6	—	—	—	—	9	8
NORTHERN PROVINCE.																		
Achchuvaly	44	23	Dec. 1	Dec. 31	—	—	—	—	44	23	—	—	—	—	—	—	44	23
Kayts and Karumben	51	37	Dec. 11	Dec. 31	—	—	—	—	51	37	—	—	—	—	—	—	51	37
Total	95	60			—	—	—	—	95	60	—	—	—	—	—	—	95	60
PROVINCE OF UVA.																		
Alutnuwara	27	15	Nov. 18	Dec. 9	8	4	19	11	—	—	—	—	—	—	—	—	27	15
Taldena	1	1	Nov. 29	Nov. 29	—	—	1	1	—	—	—	—	—	—	—	—	1	1
Welimada	18	11	Dec. 4	Dec. 24	18	11	—	—	—	—	—	—	—	—	—	—	18	1
Total	46	27			26	15	20	12	—	—	—	—	—	—	—	—	46	27
Grand Total	150	95			28	16	20	12	96	61	—	—	—	—	—	—	150	95

Table V.—Return of Cases of Smallpox, Modified Smallpox, and Chickenpox that occurred in Ceylon during 1901, and which were reported to the Civil Medical Department.

Station.	Total treated.				Total died.			
	Small-pox.	Modified Small-pox.	Chicken-pox.	Total.	Small-pox.	Modified Small-pox.	Chicken-pox.	Total.
<i>Western Province.</i>								
Infectious Diseases Hospital, Kanatta ...	149	53	182	384	35	—	1	36
Gangodawila ...	1	1	—	2	—	—	—	—
Kotte ...	1	—	—	1	1	—	—	1
Waturapola ...	2	—	—	2	2	—	—	2
Wellawatta ...	1	—	—	1	1	—	—	1
Migahawatta ...	5	2	—	7	1	—	—	1
Butpitiya ...	6	1	—	7	2	—	—	2
Eppamulla ...	4	—	—	4	1	—	—	1
Hendala ...	—	1	—	1	—	—	—	—
Mugurugampola ...	1	—	—	1	1	—	—	1
Ja-cia ...	4	—	1	5	1	—	—	1
Hanwella ...	2	—	19	21	—	—	—	—
Beruwala ...	2	5	17	24	1	—	—	1
Akurugoda ...	2	3	—	5	—	—	—	—
Mahamulla ...	1	—	—	1	1	—	—	1
Henamulla ...	6	5	—	11	1	1	—	2
Mathupitiya ...	—	1	—	1	—	—	—	—
Panadure ...	—	—	43	43	—	—	—	—
Bandaragama ...	7	5	8	20	—	—	—	—
Medagama ...	2	4	2	8	—	—	—	—
Moratuwa ...	1	1	1	3	—	—	—	—
Gariyagama ...	1	—	4	5	—	—	—	—
Henaratgoda ...	3	—	19	22	—	—	—	—
Veyangoda ...	1	—	17	18	—	—	—	—
Mirigama ...	3	—	46	49	1	—	—	1
Kochchikada ...	7	—	—	7	2	—	—	2
Negombo ...	10	2	3	15	5	—	—	5
Baruhupola ...	3	2	—	5	2	—	—	2
Kadawatta ...	—	—	12	12	—	—	—	—
Aturugiriya ...	—	—	5	5	—	—	—	—
Kelaniya ...	—	—	7	7	—	—	—	—
Avisawella ...	—	—	8	8	—	—	—	—
Hemiford estate ...	—	—	1	1	—	—	—	—
Kalutara ...	—	—	24	24	—	—	—	—
Total ...	225	86	419	730	58	1	1	60
<i>Central Province.</i>								
Infectious Diseases Hospital, Kandy ...	—	—	123	123	—	—	—	—
Gampola ...	—	—	11	11	—	—	—	—
Matale ...	—	—	311	311	—	—	—	—
Mulhalkele ...	—	—	13	13	—	—	—	—
Nuwara Eliya ...	—	—	34	34	—	—	—	—
Katugastota ...	—	—	4	4	—	—	—	—
Paldeniya ...	—	—	7	7	—	—	—	—
Hanguranketa ...	—	—	38	38	—	—	—	—
Jail Hospital, Kandy ...	—	—	41	41	—	—	—	—
Dikoya ...	13	—	14	27	1	—	1	2
Lindula ...	—	—	5	5	—	—	—	—
Kelebokke ...	3	1	2	6	—	—	—	—
Maskeliya ...	1	2	23	26	1	2	—	3
Deltota ...	—	—	1	1	—	—	—	—
Teldeniya ...	—	—	13	13	—	—	—	—
Nawalapitiya ...	—	—	4	4	—	—	—	—
Maturata ...	3	—	—	3	—	—	—	—
Dimbula ...	—	2	4	6	—	—	—	—
Elkaduwa ...	—	—	1	1	—	—	—	—
Agrapatana ...	—	—	3	3	—	—	—	—
Watawala ...	—	—	1	1	—	—	—	—
Bogawantalawa ...	—	—	13	13	—	—	—	—
Dolosbage ...	—	—	10	10	—	—	—	—
Rattota ...	—	—	16	16	—	—	—	—
Kotmale ...	—	—	1	1	—	—	—	—
Galagedara ...	—	—	22	22	—	—	—	—
Gammaduwa ...	—	—	20	20	—	—	—	—
Watagoda ...	—	—	3	3	—	—	—	—
Kadugannawa ...	—	—	1	1	—	—	—	—
Pundalu-oya ...	—	—	2	2	—	—	—	—
Total ...	20	5	741	766	2	2	1	5
<i>North-Central Province.</i>								
Kekirawa ...	—	—	1	1	—	—	—	—
Total ...	—	—	1	1	—	—	—	—

Table V.—continued.

Station.	Total treated.				Total died.			
	Small-pox.	Modified Small-pox.	Chicken-pox.	Total.	Small-pox.	Modified Small-pox.	Chicken-pox.	Total.
<i>Northern Province.</i>								
Kankesanturai ...	—	—	4	4	—	—	—	—
Delft ...	—	—	3	3	—	—	—	—
Pallai ...	—	—	1	1	—	—	—	—
Kayts ...	8	4	—	12	2	—	—	2
Vallvettitturai ...	1	—	—	1	—	—	—	—
Total ...	9	4	8	21	2	—	—	2
<i>Southern Province.</i>								
Balapitiya ...	3	—	13	16	1	—	—	1
Baddegama ...	—	—	36	36	—	—	—	—
Beralapanatara ...	—	—	4	4	—	—	—	—
Batapola ...	—	—	44	44	—	—	—	—
Dodanduwa ...	—	—	3	3	—	—	—	—
Elpitiya ...	—	—	4	4	—	—	—	—
Galle ...	5	—	43	48	1	—	—	1
Hikkaduwa ...	—	—	7	7	—	—	—	—
Hakmana ...	—	—	2	2	—	—	—	—
Kotagoda ...	—	—	3	3	—	—	—	—
Katukurunda ...	—	—	31	31	—	—	—	—
Matara ...	—	—	6	6	—	—	—	—
Hambantota ...	—	—	1	1	—	—	—	—
Nagoda ...	—	—	4	4	—	—	—	—
Weligama ...	—	—	13	13	—	—	—	—
Total ...	8	—	214	222	2	—	—	2
<i>Eastern Province.</i>								
Kanthalai ...	—	—	1	1	—	—	—	—
<i>Province of Uva.</i>								
Badulla ...	—	—	1	1	—	—	—	—
Bandarawela ...	—	3	56	59	—	—	—	—
Haldummulla ...	—	1	8	9	—	—	—	—
Haputale ...	—	—	23	23	—	—	—	—
Madulsima ...	—	—	2	2	—	—	—	—
Welimada ...	2	4	21	27	2	—	—	2
Baduluwela ...	—	—	12	12	—	—	—	—
Total ...	2	8	123	133	2	—	—	2
<i>North-Western Province.</i>								
Kurnegala ...	—	1	17	18	—	—	—	—
Polgahawela ...	—	—	4	4	—	—	—	—
Puttalam ...	5	8	—	13	2	—	—	2
Total ...	5	9	21	35	2	—	—	2
<i>Province of Sabaragamuwa.</i>								
Aranayake ...	—	—	22	22	—	—	—	—
Balangoda ...	1	2	4	7	—	—	—	—
Godakawela ...	—	—	10	10	—	—	—	—
Hunuwella ...	—	—	1	1	—	—	—	—
Kalawana ...	—	—	5	5	—	—	—	—
Karawanella ...	—	—	13	13	—	—	—	—
Kegalla ...	—	—	150	150	—	—	—	—
Kitulgala ...	—	—	2	2	—	—	—	—
Mahawalatenna ...	—	—	5	5	—	—	—	—
Helundeniya ...	—	—	4	4	—	—	—	—
Parakaduwa ...	—	—	1	1	—	—	—	—
Rakwana ...	—	—	4	4	—	—	—	—
Rambukkana ...	—	—	6	6	—	—	—	—
Ratnapura ...	6	—	7	13	4	—	—	4
Total ...	7	2	234	243	4	—	—	4
Grand Total ...	276	114	1,762	2,152	72	3	2	77

Table VI.—Statement showing Particulars of Vaccination in the Island during 1901.

Province.			Primary Vaccination.						Re-vaccination.				Percentage of Successful to Total Inspected.		
			Age.			Results.				Results.					
			Infants.	Children.	Adults.	Suc-cessful.	Unsuc-cessful.	Un-known.	Total No. vacci-nated.	Suc-cessful.	Unsuc-cessful.	Un-known.	Total No. vacci-nated.	Primary Vacci-nation.	Re-vacci-nation.
Western	...	...	259	39,014	4,580	36,383	1,492	5,978	43,853	4,738	1,149	1,931	7,818	96·06	80·48
Central	...	...	44	8,952	744	8,699	464	577	9,740	1	—	—	1	94·93	100
Northern	...	...	—	8,073	504	7,405	698	474	8,577	380	194	—	574	91·38	66·20
Southern	...	...	66	17,623	1,482	15,549	2,157	1,465	19,171	325	251	121	697	87·81	56·42
Eastern	...	...	87	5,796	654	5,576	705	256	6,537	94	—	—	94	88·77	100
North-Western	...	...	176	9,707	412	7,722	570	2,003	10,295	456	210	311	977	93·12	68·46
North-Central	...	...	—	4,019	539	3,894	429	235	4,558	132	19	4	155	90·07	87·45
Uva	...	...	73	3,394	104	3,223	114	234	3,571	178	90	130	398	95·72	66·41
Sabaragamuwa	...	...	—	9,573	444	7,640	685	1,692	10,017	631	230	501	1,362	91·77	73·28
Total	...	...	705	106151	9,463	96,091	7,314	12,914	116319	6,935	2,143	2,998	12,076	92·92	76·37
Number vaccinated on Estates by Estate Vaccinators			40	12,648	6,204	17,142	826	924	18,892	778	560	371	1,709	95·40	58·14
Number vaccinated in the District Outdoor Dispensaries			56	1,374	105	1,337	119	79	1,535	2	1	1	4	91·82	66·66
Number vaccinated in the Civil Outdoor Dispensaries			92	14,680	588	11,930	2,536	894	15,360	29	17	7	53	82·47	63·04
Grand Total			893	134853	16,360	126500	10,795	14,811	152106	7,744	2,721	3,377	13,842	92·13	73·99
In 1900			900	106449	15,169	98,871	10,827	12,820	122518	6,359	2,001	1,724	10,084	90·13	76·06

Table VII.—Arrivals of Steamers, Sailing Ships, and Native Craft, with Native Traders and Immigrant Coolies, in the Port of Colombo, from January 1 to December 31, 1901.

		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Steamers ...	...	214	217	268	238	220	221	195	298	198	199	187	107	2,562
Sailing Ships	...	—	1	—	—	—	1	1	—	—	—	—	—	3
Native Craft	...	58	55	86	40	37	25	31	34	22	31	21	34	474
<i>Traders.</i>														
Men ...	...	2,696	5,398	4,566	4,899	3,894	4,871	6,154	4,872	6,250	5,891	4,688	4,229	60,408
Women ...	...	250	348	435	410	484	460	485	430	510	437	364	338	4,951
Children ...	...	132	318	296	323	401	299	389	345	447	364	272	267	3,844
Infants ...	...	58	75	120	145	119	103	117	86	141	107	91	74	1,236
Total ...	...	3,127	6,139	5,417	5,777	4,898	5,733	7,145	5,733	7,348	6,799	6,415	4,908	70,439
<i>Coolies.</i>														
Men ...	...	977	1,117	1,882	2,309	3,657	3,997	4,178	2,988	2,752	2,006	1,633	1,395	28,891
Women ...	...	340	382	657	783	1,304	1,587	1,620	1,078	986	656	458	365	10,216
Children ...	...	220	220	381	438	854	1,089	1,096	719	588	326	255	168	6,354
Infants ...	...	128	106	190	206	397	496	558	415	315	205	125	99	3,240
Total ...	...	1,665	1,825	3,110	3,736	6,212	7,169	7,452	5,200	4,641	3,193	2,471	2,027	48,701
Vessels placed in quarantine		56	35	48	22	27	30	33	25	29	29	30	33	397
Number of Cases of Smallpox sent to Hospital ...	...	1	—	1	3	—	—	—	—	—	—	—	1	6
Number of Cases of Smallpox isolated on Board ...	...	—	—	—	—	—	—	—	—	—	—	—	—	—
Number of Cases of Chicken-pox sent to Hospital ...	...	1	—	—	1	—	—	—	—	—	—	—	—	2
Number of Cases of Chicken-pox isolated on Board ...	...	—	—	—	—	—	—	—	—	—	—	—	—	—
Number of Cases of Measles sent to Hospital ...	...	—	1	—	—	—	—	—	—	—	—	—	—	1
Number of Cases of Measles isolated on Board ...	...	—	—	—	—	—	—	—	—	—	—	—	—	—
<i>Cholera.</i>														
Number sent to Hospital ...	...	—	—	—	—	—	—	—	—	—	—	—	—	—
Number died on Board ...	...	—	—	—	—	—	—	—	—	—	—	—	—	—
Number remaining on Board		—	—	—	—	—	—	—	—	—	—	—	—	—
Total ...	...	—	—	—	—	—	—	—	—	—	—	—	—	—

For Tables VIII. and IX., see the Ceylon Blue Book, 1901, pages AA 37 and AA 46, Nosological Return and Return separating the Malabars into those sent in by the Police, &c.

Table X.—Return of Lepers treated in the Hospitals and Outdoor Dispensaries in the Island during 1901, excepting those treated in the Leper Asylum at Hendala and the Leper Wards at Kalmunai Hospital.

Western Province.		
Institution.	No. treated.	
Negombo Hospital ...	...	1
Avisawella Hospital ...	...	1
Panadure Hospital ...	...	8
Horawella Dispensary ...	...	3
Matugama Dispensary ...	...	1
Hendala Dispensary ...	...	18
Kadawatta Dispensary ...	...	1
Maradana Female Dispensary ...	...	15
		<hr/>
		48
		<hr/>
Central Province.		
Nalanda Dispensary ...	...	1
Paldeniya Dispensary ...	...	1
Agrapatana Dispensary ...	...	2
Nawalapitiya Dispensary ...	...	1
Hanguranketa Dispensary ...	...	1
		<hr/>
		6
		<hr/>
Southern Province.		
Galle Hospital ...	...	15
Tangalla Hospital ...	...	1
Balapitiya Hospital ...	...	1
Udugama Dispensary ..	...	1
Nagoda Dispensary ...	...	1
		<hr/>
		19
		<hr/>
Northern Province.		
Point Pedro Hospital ...	...	2
Mannar Hospital ...	...	1
Kankasanturai Dispensary ...	...	3
		<hr/>
		6
		<hr/>
Eastern Province.		
Institution.	No. treated.	
Mahaoya Dispensary ...	...	2
Karunkoditivu Dispensary ...	...	3
Paddiyiruppu Dispensary ...	...	4
Kalmunai Dispensary ...	...	28
		<hr/>
		37
		<hr/>
North-Western Province.		
Kurunegala Hospital ...	...	2
		<hr/>
Province of Uva.		
Badulla Hospital ...	...	3
Haputale Hospital ...	...	1
Alutnuwara Hospital ...	...	2
Bibile Dispensary ...	...	1
		<hr/>
		7
		<hr/>
Province of Sabaragamuna.		
Balangoda Hospital ...	...	5
Karawanella Hospital ...	...	1
Rakwana Hospital ...	...	1
Kegalla Hospital ...	...	2
Godakawela Dispensary ...	...	1
		<hr/>
		10
		<hr/>
	Grand Total ...	135
		<hr/>

Table XI.—Cost of Establishment, 1901. ♦

			Amount. Rs. c.	Total. Rs. c.
<i>Personal Emoluments</i> ...	...	...	278,330 1	
<i>Exchange Compensation</i> ...	...	...	11,725 5	
<i>Allowances.</i>				
House allowance to Assistant Principal Civil Medical Officer ...	...	...	840 0	
House allowance to Surgeon in charge, General Hospital ...	...	...	840 0	
House allowance to First Assistant Medical Storekeeper ...	...	...	146 37	
<i>Medical College.</i>				
Registrar, Medical College ...	...	...	6,000 0	
Allowance to Lecturers ...	...	...	9,000 0	
Salary of Lady Doctor ...	...	...	3,580 92	
House allowance to Lady Doctor..	...	...	600 0	
Scholarship for Female Students...	...	...	1,000 0	
Pay of head servant ...	...	...	240 0	
Pay of carpenter and cooly ...	...	...	330 0	
Laboratory Assistant ...	...	...	480 0	
Servant, Medical Museum ...	...	...	150 0	
Female attendant, dissecting room ...	...	...	180 0	
				313,442 35
<i>Other Charges.</i>				
Remuneration to private medical practitioners ...	...	...	5,074 15	
Bookbinding, office furniture, and petty expenses ...	...	...	1,180 76	
Boatmen for Health Officer, Colombo ...	...	...	1,511 15	
Animal Vaccination, Western Province ...	...	...	4,642 95	
Do. Central Province ...	...	...	1,439 48	
Do. Southern Province ...	...	...	1,535 75	
Do. Northern Province ...	...	...	548 28	
Do. Eastern Province ...	...	...	797 9	
Subscription to Colonial Medical Library ...	...	...	500 0	
Appliances to illustrate lectures ...	...	...	1,715 90	
Purchase of glass almirahs, &c., for the Medical College ...	...	...	278 81	
Stationery ...	...	...	4,050 72	
Rent of Colonial Surgeon's Office, Jaffna ...	...	...	150 0	
Do. Kandy ...	...	...	660 0	
Do. Kurunegala ...	...	...	300 0	
Rent of Temple House ...	...	...	1,276 25	
Rent of Medical Officer's quarters, Chilaw ...	...	...	240 0	
Rent of Vaccine Stations, Colombo ...	...	...	2,160 0	
Horse allowance to Principal Civil Medical Officer ...	...	...	420 0	
Horse allowance to Colonial Surgeon, Western Province ...	...	...	420 0	
Carriage allowance to Chief Inspector of Vaccination, Western Province...	...	...	420 0	
Horse allowance to Medical Officer (Police) ...	...	...	420 0	
Relief to Medical Officers in solitary stations ...	...	...	222 67	
Travelling expenses of Medical Officers, &c., General ...	...	...	27,273 69	
Travelling expenses of Medical Officers, &c., in the Provinces ...	...	...	18,869 7	
				76,106 73
<i>Hospitals and Dispensaries</i> ...	...	...	—	723,315 89
<i>General.</i>				
Purchase of medicines and instruments ...	...	...	178,005 71	
Purchase of medicines in India ...	...	...	575 20	
Do. Ceylon ...	...	...	5,574 75	
Transport of medicines ...	...	...	9,575 21	
Articles for Civil Medical Stores ...	...	...	6,135 76	
Repairing instruments ...	...	...	85 0	
Contingencies ...	...	...	870 76	
Petty expenses ...	...	...	90 0	
				200,912 39
<i>Harbour Service.</i>				
Harbour service ...	...	...	—	1,863 22
Plague precautions ...	...	...	—	12,835 82
Grand Total ...	...	...	—	1,328,416 40

Table XII.—Statement of Expenditure of the several Government Hospitals, Asylums, &c., for 1901.

Hospitals, &c.	Total Number of Patients treated.	Average daily Sick.	Diets.	Extra Articles of Diet.		Total.	Equipment.	Funeral Expenses.	Wages and Allowances of Nurses.		Wages of Dispensers, Attendants, &c.	Contin- gencies.	Total.
				Stimulants.	Other Articles.				Rs.	c.			
I.—ASYLUMS.													
Lunatic Asylum, Jawatta	—	—	Rs. c. 57,754 76	Rs. c. 210 25	Rs. c. 4,252 84	Rs. c. 62,217 85	Rs. c. 8,891 51	Rs. c. 121 86	Rs. c. —	Rs. c. 11,906 5	Rs. c. 4,134 61	Rs. c. 87,271 88	
Leper Asylum, Hendala	—	—	29,735 25	130 46	3,433 37	33,299 8	3,885 2	392 48	—	4,306 97	2,524 3	44,407 58	
Total	—	—	87,490 1	340 71	7,686 21	95,516 93	12,776 53	514 34	—	16,213 2	6,658 64	131,679 46	
II.—De Soysa Lying-in Home	—	—	2,001 4	55 0	107 83	2,163 87	274 87	45 70	—	870 0	792 57	4,147 1	
III.—CIVIL HOSPITALS.													
Colombo	—	—	50,412 98	2,180 12	5,634 94	58,228 4	6,235 28	637 40	—	11,783 8	8,926 65	85,810 45	
Seamen's, Planters', Anthonsiz, Passengers', and Cargill's Wards	—	—	10,158 82	1,426 19	5,500 78	17,085 79	1,871 8	—	—	4,090 42	4,205 2	27,252 31	
Lady Havelock Hospital	—	—	4,934 48	113 31	1,460 89	6,508 68	1,200 75	240 71	—	3,510 0	1,264 92	12,725 6	
Negombo	—	—	4,071 8	13 85	57 48	4,142 41	402 39	186 50	—	1,488 0	442 52	6,661 82	
Kalutara	—	—	3,923 94	7 1	47 54	3,978 49	566 55	160 50	—	1,416 91	351 95	6,474 40	
Panadura	—	—	2,779 43	10 9	139 10	2,928 62	401 18	243 0	—	911 84	124 76	4,609 40	
Kandy	—	—	20,580 3	379 72	1,736 24	22,695 99	2,817 88	968 30	—	5,285 38	1,167 44	32,934 99	
Katugastota	—	—	1,052 68	—	0 24	1,052 92	75 96	2 0	—	606 0	50 21	1,787 9	
Gampola	—	—	5,047 35	14 81	153 71	5,215 87	882 98	157 84	—	1,518 0	330 65	8,105 34	
Nuwara Eliya	—	—	8,480 61	219 88	362 0	9,062 49	875 49	342 0	—	1,792 0	860 7	12,932 5	
Matale	—	—	7,791 36	15 93	590 92	8,398 21	820 11	228 76	—	1,588 20	849 24	11,884 52	
Mulhalkele	—	—	3,404 88	7 70	102 49	3,515 7	406 7	48 96	—	2,139 25	260 78	6,370 13	
Mullaitivu	—	—	1,949 98	—	121 97	2,071 95	305 38	16 0	—	936 0	184 94	3,514 27	
Vavuniya	—	—	2,067 71	0 3	37 58	2,105 32	182 82	46 0	—	886 0	151 10	3,371 24	
Point Pedro	—	—	2,317 25	3 91	57 79	2,378 95	152 49	8 75	—	704 39	97 33	3,341 91	
Mantota	—	—	1,507 12	—	59 14	1,566 26	145 52	66 0	—	900 0	221 41	2,899 19	
Galle	—	—	10,247 53	62 4	445 78	10,755 35	2,063 92	73 0	—	2,774 33	927 73	16,594 33	
Balapitiya	—	—	3,110 30	88 67	67 91	3,266 88	205 15	186 0	—	780 96	122 91	4,561 90	
Matara	—	—	4,760 94	20 45	77 89	4,859 28	735 32	61 50	—	1,200 0	654 58	7,510 68	
Tangalla	—	—	1,070 57	1 38	19 22	1,091 17	132 85	24 0	—	752 0	188 56	2,188 58	
Hambantota	—	—	1,398 3	32 10	152 69	1,582 82	102 32	52 0	—	750 0	302 50	2,789 64	
Batticaloa	—	—	1,854 43	35 56	119 73	2,009 72	326 29	46 50	—	1,226 75	284 31	3,893 57	
Trincomalee	—	—	1,866 18	25 50	30 89	1,922 57	138 25	44 98	—	827 80	90 86	3,024 46	
Kalmunai	—	—	3,262 37	—	552 27	3,814 64	410 75	44 15	—	1,392 12	416 31	6,077 97	
Kurunegala	—	—	9,554 41	243 59	315 51	10,113 51	1,031 50	378 58	—	2,226 0	578 79	14,323 38	
Puttalam	—	—	3,075 47	88 0	228 35	3,391 82	280 30	167 70	—	1,071 0	217 97	5,128 79	
Marawila	—	—	4,677 27	3 36	84 68	4,765 31	587 81	204 0	—	1,020 0	141 56	6,718 68	
Chilaw	—	—	2,097 36	2 13	36 84	2,136 33	120 42	76 50	—	756 0	279 35	3,368 60	
Anuradhapura	—	—	4,579 71	10 38	44 76	4,634 85	788 53	224 50	—	1,230 0	222 76	7,100 64	
Badulla	—	—	9,461 81	243 74	666 29	10,371 84	3,226 50	300 0	—	3,215 0	1,020 69	18,134 3	
Ratnapura	—	—	6,737 61	13 54	493 17	7,244 32	240 43	194 89	—	1,268 53	309 26	9,257 43	
Kegalla	—	—	5,226 46	8 47	332 30	5,567 23	1,005 77	331 75	—	1,224 0	345 14	8,473 89	
Total	—	—	203,460 15	5,271 46	19,731 9	228,462 70	28,738 4	5,762 77	—	61,269 96	25,592 27	349,825 74	

